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Trial by Fire: Cultural Complacency, Institutional Learning, and the Development of the Fire Warden System in Minnesota, 1870-1920

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by

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Abstract

Between 1870 and 1920 Minnesota business culture focused on depleting the land of its resources with little regulation while the ecological landscape was influenced by a hot and dry climatic cycle. As these two forces collide, Minnesota experiences its four “great fires” (1894, 1908, 1910, and 1918). Each of these fires provide substantive documentation on emergency response and relief illustrating Minnesota’s development of a disaster response program. With several localized fires, the learning gained from fire to fire can be assessed. After evaluating the responses to each of these fires, one can conclude that although technological advancements and complex relief organizations developed between fires, the business culture of Minnesota stymied any real learning on behalf of Minnesota settlers. The stymied learning of the settlers led to a similar death count for the first and fourth fires.

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Introduction

On August 10th, 2019, the town of Kettle River gathered for their annual "Ma and Pa Kettle" days. The town had a parade full of tractors and local groups proceeding through town and throwing candy to children. In the veteran's building, locals gathered to remember the recovery of the region after one of the most devastating disasters in Minnesota history, the great fires of 1918. The festivities were filmed by a local independent film group, The Kettle River Project. The group has recently become a staple of the community by participating in the filming of town memory, including the centennial of the fires held the previous year.

Children growing up in the areas scorched by fire a century ago still find the flames inescapable. In primary school, it is common to take a field trip to the Hinckley Fire Museum to spend the day learning about the time the town was razed to the ground in 1894. Anytime a grandparent or other elder in the community drives children to an event, they might point out a little section of field and claim "that's where the fire started." Once enrolled in high school and taking American History courses, as soon as the curriculum reached the First World War, it would not be uncommon for there to be at least one day of class dedicated to the 1918 fire. Children today cannot escape learning about these fires much like their community couldn't escape the flames in 1894 and 1918. In many cases, someone in the community can trace at least one relative to "the fire," and can precisely recount every movement their ancestor made according to family lore.

At first glance, it might seem a bit odd to examine episodes of dryness in a place known for its bountiful lakes. The name Minnesota comes from a Dakota phrase *Mni Sota Makoce,* "the

land where the waters are so clear they reflect the clouds."[1] Surely, this could not be an area where fire was common, and even if there were a few fires in this area, none of them could be of any severity. The inhabitants could draw water from over ten-thousand lakes to suppress it. It does not in any way seem logical to do an in-depth study about dryness in Minnesota, nor would it seem plausible to anyone that there is much of a story here. However, if one looks closer, they will see that Minnesota has had a long history of battling dryness.

Looking closer at Minnesota in the twentieth century, one can see that Minnesota suffered from many droughts. Minnesota experiences series of droughts in the 1930s which make up what historians call "the Dust Bowl Era." However, the most significant drought in 1910 and although it lasted for a shorter period it managed to be much more severe than what occurred in the 1930s. Again, in the mid-1970s, a similar drought affected Minnesota farmers. In addition to these two droughts, there were two more droughts relatively equivalent to the severity of the 1930s drought in the 1960s and again in the 1990s. At least three of these droughts remain in living memory for many Minnesotans. Yet we still find ourselves thinking of Minnesota as wet.[2]

None of the above droughts will be discussed in this work. Instead, this work aims to explore the period of dryness that impacted Minnesota for its first seventy years. "Dryness" as a term is preferable to drought. Drought is a natural disaster which comes out of dryness, a climatic condition. A series of natural disasters in fifty years demonstrate Minnesota's relationship with dryness. Among droughts are the fires that have ravaged the state. People often do not view climate and climate change as critical historical forces. The belief that climate is not

[1] Gwen Westerman and Bruce White, *Mni Sota Makoce: The Land of the Dakota* (St. Paul: Minnesota Historical Society Press, 2012), 23.
[2] Pete Boulay, "Historical Drought Overview and Current Conditions" *State Climatology Office Ecological and Water Resources* (2016): 1-38.

a historical force contributes to climate change denial, which is a severe threat to our current world.

The way people most profoundly understand that climate has an impact on their lives is by experiencing these natural disasters. Victims of fires often cite a dry year or dry years as a significant factor in the severity of a blaze. Natural disasters act as the intermediary between humans and the climate in which they live. Because of their status as an intermediary, the study of natural disasters is essential to understand the relationship between humans and their environment.[3] However, if we are to study natural disasters, why study those in Minnesota? Admittedly, as bad as the 1918 fire was, it is nothing in comparison to a California wildfire. Why would it be prudent to study a period of disasters in Minnesota?

The answers to these questions are diverse. Historians study natural disasters in part to understand how the people handled the response. By examining responses, historians can track people's learning from disasters. To track if responders learned anything from their disasters, one needs to have two of the same kinds of disaster in a similar area in a relatively short period. Minnesota fills this requirement with many large fires within a fifty-year span. In addition, within the first seventy years of Minnesota's existence as a state, it was challenged by multiple natural disasters. These disasters would challenge the bureaucratic and fundraising powers of the state as it worked to give relief to victims. For these reasons, Minnesota is an ideal location to examine the effects of natural disasters on human populations.[4]

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[3] Kevin Z. Sweeny, *Prelude to the Dust Bowl: Drought in the Nineteenth- Century Southern Plains* (Norman: University of Oklahoma Press, 2016), 7-26.

[4] Christian Pfister, "Learning from Nature-Induced Disasters: Theoretical Considerations and Case Studies from Western Europe," *Natural Disasters, Cultural Responses: Case Studies toward a Global Environmental History* Christof Mauch and Christian Pfister ed. (Lanham: Lexington Books, 2009), 1-24.

The historiography of a topic like this is difficult to analyze. This is because state historians do not cover the great fires in state history in great detail. The three most-well known historians of the state, William Watts Folwell, Theodore Blegen, and William Lass, dedicate only a brief amount of time and space to the fires and the individuals who created programs to fight them. They all echo Folwell in lauding Christopher Columbus Andrews, a soldier and conservationist that will be discussed thoroughly throughout this work, as a chief responder to the fires. In addition, they also unanimously declare that the 1894 Hinckley fire engendered activity in the state legislature to attempt to prevent further fires from destroying Minnesota towns.[5] Unfortunately, none of these historians go beyond these quick remarks. The nature of this local study, however, also fits into much broader historiography concerning climate, natural disasters, and environmental history.

Thinking about climate historically began with the advent of a conference in 1979. The conference comprised of professionals from many scientific fields and historians. Together, they shared thoughts and created methodologies for advancing a historical study of climate. A year later, many of those conference participants contributed to an issue of the *Journal of Interdisciplinary History* and later republished their essays in an anthology entitled *Climate and History: Studies in Interdisciplinary History*. The work roughly outlines how to go about scrutinizing sources and what sources are considered valid by the discipline. The interdisciplinary nature of this new field provides methodology on how to interpret non-written

[5] William Watts Folwell, *Minnesota: The North Star State* (Boston: Houghton Mifflin Company, 1908), 357-358. Theodore Christian Blegen, *Minnesota: A History of the State* (Minneapolis: University of Minnesota Press, 1963), 415-425. William Lass, *Minnesota: A History* (New York: W. W. Norton & Company, 1998), 205-208.

climatological data and put that into historical context. Even within the volume, that methodology came under the scrutiny of economic historian Jan De Vries.[6]

De Vries' contribution to the work, "Measuring the Impact of Climate on History: The Search for Appropriate Methodologies," critiques the value of interdisciplinary evidence and climate's impact on human action as a whole. De Vries writes primarily about economic history in early modern Europe. De Vries notes that instrumental data regarding climate does not go farther back than the Enlightenment. Furthermore, De Vries does not trust what many call proxy data. Proxy data are things like dendrochronological sources near the area of study that could provide hints of what the climate of that region was like over time. Perhaps rightly so, De Vries argues for skepticism, not of the existence of this evidence, but of its possible interpretations by historians.[7]

The debate over the validity of proxy data is more relevant in histories covering periods prior to the seventeenth century. Historians use proxy data to stand in place of standardized weather measurements where there are none. For any history after the invention of standardized weather observation, there is no real need to rely on any kind of proxy information. Much of *Climate and History* focuses on the historiographical debate on whether or not there was a "Little Ice Age," in Early Modern Europe. The debate of the existence of a "Little Ice Age" bears little relevance to this project. The vast majority of the anthology and its contributors demonstrated ways to develop proxy data and argued both for their validity and their significance. Although

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[6] Robert I Rotberg and Theodore K Rabb ed, *History and Climate: Studies in Interdisciplinary History* (Princeton: Princeton University Press,1981), x-xi.
[7] Jan De Vries, "Measuring the Impact of Climate on History: The Search for Appropriate Methodologies," *History and Climate: Studies in Interdisciplinary History* Robert I Rotberg and Theodore K Rabb ed. (Princeton: Princeton University Press, 1981), 19-48.

some may still call to question the validity of this data, the majority rule favors the use and application of proxy data for reconstructing past climates prior to the advent of standardized weather observation.[8]

De Vries argues that although the weather can impact something like a harvest, and therefore, an economy, at the climatological level, there is not a significant degree of change in the long term. De Vries challenges historians to demonstrate the significance of rare natural disasters in the larger spectrum of climate history. Supporters of De Vries often quote a particular passage arguing against historians that use natural disasters as evidence that the climate can affect the economy: "Unless these crises can be shown to be something other than unique, exogenous shocks, a skeptic might feel justified in concluding that short term climatic crisis stand in relation to economic history as bank robberies to the history of banking."[9] De Vries believes that climate can affect human history only in terms of humans adapting to their environment and finding ways to make the environment less impactful on their lives. He concludes that as long as historians try to prove that climate can negatively impact people, all they will do are histories of disasters that only mean something on a small scale.[10]

Any historian studying climate and natural disasters must grapple with the broader implications of De Vries' statements. De Vries provides important critiques of climate history in terms of the sources used and the interpretations that are possible. Much of the volume that he contributed to deals with early modern Europe and a debated phenomenon called the Little Ice Age. In terms of handling instrumental data on the climate, there are significant differences

[8] Robert I Rotberg and Theodore K Rabb ed., *History and Climate*, 85-243.
[9] *Ibid*, 23.
[10] *Ibid*, 19-48.

between early modern Europe and late-nineteenth and early twentieth-century Minnesota. One does not need to rely on proxy data to develop a sense of Minnesota's climate. Instead, with standardized weather observations, historians can gain a very accurate sense of what was going on with Minnesota's climate in the late-nineteenth and early-twentieth centuries. A study of Minnesota can bear many fruits in terms of climate and disaster affecting the state. The following study of Minnesota will demonstrate that climate engendered disasters are not "unique, exogenous shocks," but instead they were commonplace. In many cases, the inhabitants of the settled regions of Minnesota became complacent in dealing with them. This complacency lead to several disasters that changed the tone of settlers' relationship with the environment.

Environmental historians often fall within one of two lines of argument: possiblism, and mutual determinism. Possiblism promotes the idea that the environment limits the possible activities of people. Kevin Sweeny uses possiblist thought in his *Prelude to the Dust Bowl: Drought in the Nineteenth-Century Southern Plains* to explain the impact of drought on communities in the Southern Plains. Sweeney argues that the mid-nineteenth-century drought was a more severe environmental catastrophe than either the 1820 drought or the famous Dust Bowl. Sweeney uses the drought to explain that human residents would have a limited amount of choices regarding how to interact with an environment affected by drought. They could compete with other groups for the limited resources in the area, or they could move and seek a better region with more significant resources.[11]

Mutual determinism argues that humans and the environment consistently influence each other. William Cronon's *Changes in the Land: Indians, Colonists, and the Ecology of New*

[11] Kevin Sweeny, *Prelude to the Dust Bowl,* 11-25.

England utilizes this line of thinking to explain ecological changes in New England. As Cronon famously put it:

> An ecological history begins by assuming a dynamic and changing relationship between environment and culture, one as apt to produce contradictions as continuities. Moreover, it assumes that the interactions of the two are dialectical. The environment may initially shape the range of choices available to a people at a given moment, but then culture reshapes the environment in responding to those choices. The reshaped environment presents a new set of possibilities for cultural reproduction, thus setting up a new cycle of mutual determination. Changes in the way people create and re-create their livelihood must be analyzed in terms of changes not only in their social relations but in their ecological ones as well.

Of the two theories proposed by environmental historians, my research will focus on mutual determinism. Although Minnesota's environment limited the kinds of enterprise available for settlers, the enterprises they chose (logging, farming, and mining) changed the landscape thoroughly, to the lament of many contemporaries. However, these changes also created a distinct vulnerability to great fires that inevitably shape the cultural memory of the state.[12]

Christian Pfister, in the opening chapter of an anthology entitled *Natural Disasters, Cultural Responses: Towards a Global Environmental History,* provides powerful insight into how to examine human learning in the wake of natural disasters.[13] Pfister opens by explaining that most environmental historians look at environmental history as a study of how humans impact the environment. However, Pfister argues that things like climate change are causing people to look at how the environment impacts human action. Pfister then goes on to discuss that the term "natural disaster" does not correctly work in many cases. Pfister argues that a natural thing would be untouched by humans and that a disaster automatically implicates human

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[12] William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983), 23-36. Blockquote appears on page 34.
[13] Pfister, "Learning from Nature-Induced Disasters," 1-24.

involvement. Therefore, the correct term would be a "nature-induced disaster." Nature-induced disasters take on two forms. There are the "rapid-onset hazards" and the "Slow-onset hazards" the former are quick starting disasters like a hurricane, the latter are slow going and long lasting like drought or disease.[14]

The purpose of Pfister's chapter is to investigate changes in learning how to combat disasters as something generated by disasters. Pfister's argument takes on several parts. In the first, he explains that learning in terms of the history of disasters is based on the noun "learning" meaning knowledge of a particular thing. Then Pfister examines the difference between "cognitive" and "behavioral" learning. One tracks behavioral knowledge through government policies addressing disaster preparedness or the actions of local community leadership. Cognitive knowledge is broken into "what" and "how" and generally focuses on prevention or adaptation of/to the disaster. The chapters that follow will demonstrate that the distinction between these kinds of knowledge blur significantly in a state that was young and exercising new powers whose citizens were still creating local social organizations.[15]

Pfister explains that for learning to be demonstrated by improvement, there has to be two of the same kind of a disaster for a comparison. Pfister explains that this can take long periods and may require the study of multiple regions instead of the same one. Thankfully, for a survey on fires in Minnesota, the great fires come in relatively short succession and happen relatively close to each other with many of the same people and organizations presiding over them. The study of fires in Minnesota can significantly contribute to the understanding of how humans learn to prevent disaster through their experience with it. One can subdivide learning into two

[14] *Ibid*, 1-24.
[15] *Ibid*, 1-24.

groups. When one takes present knowledge and applies it to a current problem that is cumulative learning. Finding a new way to approach a problem constitutes fundamental learning. Again, by examining the great fires, the line between these distinctions will waver.[16]

It is crucial now to briefly survey the critical works of what has been called "fire history." The most eminent historian of fire is Stephen J. Pyne, who has written a myriad of books on fires that occurred in both in the United States and around the world. One of his most famous works, *Fire In America: A Cultural History of Wildland and Rural Fire* seeks to navigate the "culture of fire" or the relationship between fire and cultural communities in the United States. Pyne highlights that fire is the only force of nature controllable by humans and that humans are the chief cause of fire throughout the world. Humans have managed to bring fire with them as they expanded across the globe, and as Americans moved west to places like Minnesota, their cultural experiences with fire had to navigate the line between utility and disaster.[17]

Another important work by Pyne for this study is *Year of the Fires: The Story of the Great Fires of 1910*. Here, Pyne writes specifically about the 1910 fire season and the devastation it brought the country. In particular, Pyne provides a brief account of the 1910 Baudette and Spooner fire that devastated Beltrami County, Minnesota. In this account, Pyne lauds Forest Commissioner Christopher Columbus Andrews (a man who oversaw the creation and destruction of many fire relief programs and the great fires themselves). For Pyne, Andrews successfully utilized fire wardens to fight the last million-acre fire in state history. Pyne inaccurately portrays the fire statistic here, it was not one large fire, but instead a fires season

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[16] *Ibid*, 1-24.
[17] Stephen J. Pyne, *Fire in America: A Cultural History of Wildland and Rural Fire*, (Seattle: University of Washington Press, 1997), 28-30.

that burned over one million acres. Pyne sees the Baudette and Spooner fires as a significant turning point as the significant fires shift westward to places on the west coast. Although Pyne is correct that this is the last major fire in terms of total acres burned, the cultural memory of the 1918 fires permeates the minds of many Minnesotans as the largest and most devastating of the state's fires.[18]

The leading authority on the Hinckley fire is Daniel James Brown. Brown is a bestselling author who has a familial connection to the 1894 fire. Brown's purpose for writing is to tell the story of the victims who had to face the fire. Brown became the first author to write a full-length work on the Hinckley fire. As a bestselling author, Brown emphasizes the stories of personal heroism during the fire and highlights the death of many individuals. Brown's work is essential for gathering thorough leads on the principal actors in the relief of Hinckley, both within the town and in the greater community. Brown's take on the fire is less analytical and more about providing a colorful and exciting narrative for the events at Hinckley. Many of the survivors are treated as heroes who took charge in the face of great danger. What his work lacks in analysis it makes up for in exciting recounting of the actions of past peoples.[19]

Francis Carrol and Franklin Raiter's monograph, *The Fires of Autumn: The Cloquet-Mooselake Disaster of 1918* remains the authoritative text on the 1918 fires. They note that many people have written narratives before theirs, but their work is the first that sought to explain causes of the fires and why relief was so estranged (full relief took an act of Congress in the 1930s). Carrol and Raiter approach the source material a little bit differently, much of what they

[18] Stephen J. Pyne, *Year of the Fires: The Story of the Great Fires of 1910* (New York: Penguin Books, 2001), 1-25; 229-235.
[19] Brown, *Under a Flaming Sky: The Great Hinckley Firestorm of 1894* (Guilford: The Lyons Press, 2009), ix-xi; 1-6.

draw from come from a myriad of court cases surrounding the fire. They treat the recorded testimony of fire victims as oral history. In doing so, they manage to find significant accounts of survival and heroism, as well as narrow down some of the causes of the fire by the testimony of its first witnesses.[20]

The most recent book to come out discussing the fire was Curt Brown's *Minnesota 1918: When FLU, FIRE, and WAR Ravaged the State*. Like Daniel Brown, Curt Brown is not a trained historian. He is a journalist. Brown's work looks at the combined problems of the 1918 fires, the 1918 flu pandemic, and the First World War on the state. Brown argues that all of these problems fed into each other and made each of the problems worse. The lives lost in each of these events changed the state significantly. However, much of Brown's work is a repetition of names and events from Carroll and Raiter's work, with a few slight additions. Again, as a non-historian, Brown emphasizes heroism and the personal qualities of the event over the historical processes that led the events to happen.[21]

One major problem with the aforementioned works is their focus on singular events. They focus on one fire and claim that the fire that is the subject of their work is the most devastating of the state's forest fires for one reason or another. This thesis will juxtapose each of the four major forest fires to both synthesize and correct these previous histories. Because of their depth of focus on one disaster, they mislead their reader in terms of the fire's size and on occasion report statistics for an entire fire season (the dry season in which fires crop up across

[20] Francis Carroll and Franklin Raiter, *The Fires of Autumn: The Cloquet-Moose Lake Disaster of 1918* (St. Paul: The Minnesota Historical Society Press, 1990), ix-xv.
[21] Curt Brown, *Minnesota 1918: When FLU, FIRE, and WAR Ravaged the State* (St. Paul: Minnesota Historical Society Press, 2018), 3-13; passim.

the state) as the statistics for a single fire. By examining each fire closely, this thesis will provide a corrective narrative to the four great fires of Minnesota history.[22]

The following chapters will examine the environmental circumstances and the learning developed through experiencing great fires. Climatic conditions from 1870-1920 were perfect for large fires and the cultural attitudes towards the fire and the environment exacerbated that risk. Once the fires began, state leaders and citizens in rural areas begin to put systems in place to reduce the likelihood of significant fires erupting. However, the cultural perception of the threat of fire advanced slower than the attempts to create technologies or systems to quench fires. As a result of that poor cultural outlook, the fires would continue to devastate Minnesotan's towards the apex of these fires in 1918. Local men fought the Hinckley fire, and the 1918 fire was fought in part by the National Guard and other exterior organizations. Despite advances in technology and the creation of new organizations to combat disaster, the issue of human perception of the environment perpetuated the problem of fire.

The first chapter will provide the environmental context for the period. First, on a scientific level, then on a cultural one. The data on Minnesota's climate will demonstrate that the state was arid and at risk for fires despite its abundance of lakes. Then the chapter will shift to discuss how Minnesotans viewed their environment. They nonchalantly treated small fires that were a regular part of their experience. Manifest destiny claimed that they needed to remove the forest and create farms. Finally, two essential acts paved the way for nationwide environmental change. First, the Homestead Act provided legal loopholes to make tree cutting easier. Similarly,

[22] Carroll and Raiter, *The Fires of Autumn*, 1-24.; Pyne, *Year of the Fires*, 229-235. These works in particular mislead or misinterpret fire statistics that makes their respective fires appear larger than they were. Upon review, it appears that the authors used fire season statistics instead for statistics for the specific fire. This thesis will give reference to both specific fire size and the fire season as it fits with the narrative.

the Dawes Act allowed similar problems to be perpetrated on Native American Reservations throughout the state and at Fond Du Lac in particular. Linking the scientific understanding of Minnesota with the settler's cultural understanding of its environment will establish a fundamental problem for understanding the great fires. Namely, that the cultural habits of overuse of local surroundings generated a systematic vulnerability in the immolated areas.

The second chapter will examine the 1894 Hinckley fire. In particular, the chapter will analyze the actions of Angus Hay and John W. Blair. Hay was a newspaper editor that predicted the fire due to the unfortunate disposition of individuals about the small fires around town. John W. Blair was an African American railroad worker who rose to the occasion and saved an entire train full of people from dying in flames. Then the chapter will look at the significant state organization that rose from the flames to combat future disasters: the fire warden system. The latter half of the chapter will track the development of the program under Christopher Columbus Andrews and highlight key moments in the program's short history. This chapter will demonstrate how the initial response at Hinckley was dominated by acts of personal heroism because there were no programs in place to protect the inhabitants. The system that grew out of this disaster would focus primarily of prevention with the additional ability of being able to fight fires that did crop up.

The third chapter will provide details on the first tests and development of firefighting systems following the creation of the fire warden system. The first test to be discussed will be the 1908 Chisholm fire, a conflagration in St. Louis County that destroyed an important mining town. The second test will be the 1910 Baudette and Spooner fire, perhaps better identified as the Beltrami blaze because of the scope of the fire in that particular county. The third aspect of this chapter will be examining the overwhelming push back against the fire warden system and

conservation throughout the state. Minnesotans perceived the fire warden system and the fire prevention laws as things holding back American manifest destiny. Minnesotans and state legislative officials pushed back and defended many of the programs that were intended to spare them from devastation. This chapter will demonstrate growth in how fires were dealt with via the fire warden system on a practical and practicable level, but that lead to a perpetuation of the cultural attitudes that made its citizens more vulnerable (ie: Many believed they were totally safe and fires were no longer a threat and the fire warden system no longer needed funding).

The fourth chapter will examine the complexity of the 1918 fires in light of the themes from the previous three. The chapter will describe the continued community ignorance towards small fires. It will demonstrate that this particular disposition towards environmental hazards created a distinct social vulnerability that further exacerbated the social vulnerability of two main groups, the Ojibway of Fond Du Lac and the Children of rural farmers near Moose-Lake and Kettle River. In addition, this chapter will demonstrate that there were many more organizations present in 1918 to respond to these disasters, including the National Guard and the American Red Cross. Again, this chapter will highlight the practical changes in firefighting and prevention in addition to the recovery of an area. Failure to recover the region by disaster relief organizations led the survivors of the region into a seventeen-year legal battle to seek reparations. However, the remaining questions are cultural, namely, who was to blame for the fire and how might the community be compensated.

The central argument of this thesis possesses three components. First, early 20th century Minnesota is an excellent case study in terms of evaluating institutional learning regarding response to natural disasters. Unlike any other study in this field, a case study on Minnesota provides a narrow geographic and temporal sample that can allow a historian to truly examine

what was or was not learned between disasters. Most studies in this field require one to work on a scale that spans both nations and centuries. But Minnesota suffered four major fires over the course of twenty-three years. The same kinds of people fought these fires and the same kinds of organizations managed recovery. The first fire would be in the living memory of those that had experienced the second.[23]

Second, Minnesota demonstrates that learning cannot take root in a community that does not see disaster preparation as necessary. Minnesota's settler culture looked to improve the natural landscape to make themselves more comfortable. They believed that the environment was something to be conquered. In an ecological sense, many of these settlers were acting out the principles of manifest destiny. Even though Minnesotans had heard of the previous fires, they believed that fire would never come to them. They knew fire was all around them but they never saw it as a problem. They believed that it was a tool of improvement and that if that tool went out of control it would be easily conquered. These ideas lead to a complacency towards fire management that lead to the four major wildfires in state history. Despite growth in the organizations created to fight fire, the cultural complacency of Minnesotans leads to nearly equivalent death tolls in the first and the last of these major wildfires.

Third, the only way to teach a community the necessity of disaster preparation is through frequency and death. In the history of Minnesota forest fire management, the only times that broad reforms were pushed through occurred after massive economic and humanitarian loss. The first reform occurred in 1895 after a fire took the likes of over four-hundred people at Hinckley. A small temporary adjustment would be made with the second fire in 1908, but the second major

[23] Pfister, "Learning from Nature-Induced Disasters," 1-24.

reform would be made in 1910 after twenty-nine people lost their lives in a fire season that burnt over one million acres. Despite these changes, the dominant culture of complacency towards fire management remained and resulted in the deadliest fire in state history in 1918.

Here, I will briefly describe the methods and sources that this thesis employs. It would be nearly impossible to be intimately acquainted with all of the fires or to track down each scrap of a letter or diary of multiple survivors from many fires across the state. Instead, the "official histories" have been used to track the major developments of each fire and the actions taken by survivors. These official histories were written by men and women intimately acquainted with the fire and/or the recovery of the affected region. In the beginning, at fires like Hinckley, the official histories were used to drum up charity revenue for the fire victims within months of the disaster's occurrence. To do so, these histories would require one to provide acts of heroism and survival. In the last fire, in 1918, the official history was written by the state organization in charge of relief as a means to detail their actions for auditing purposes. The language in this last history does not include acts of heroism but instead distanced methodology for the purpose of a state audit. Pyne argues that these state histories were a cultural part of overcoming the flames because they could memorialize the event and provide closure for the affected community.[24] It would be natural to have an official history to provide closure to the people whose lives were changed by fire. Thus, these official histories, which often have more accurate statistics than newspapers (by the time the official histories came out damages have been tabulated instead of estimated, same with the death count), are an invaluable resource for a project like this one.

[24] Pyne, *Year of the Fires*, 231-232.

Another important series of accounts for this project are the annual accounts produced by the chief fire warden, the forest commissioner, and the state forester (all different names for the same position, see later chapters). It would be difficult to collect and read the myriad of forms filled out by the thousands of fire wardens throughout the state. Thankfully, the annual accounts of the officer in charge of them were subject to audit each year. That officer would typically compile all of the important forms that assisted in the changes to a policy (or detailed first hand experiences with a major fire) and provided an excerpt in this report. These reports were to be part narrative, part statistics, and part voices of those in the trenches of fire prevention. These accounts were subject to both audit and review by the governor.

To create the link between climate science and the ecological experiences of settlers, I have relied of several scientific studies of the state. I worked diligently to ensure that these studies were relevant specifically to the subject of dryness or fire within the state boundary. One of these studies has been used before, but to my knowledge the rest of them have not been used to inform the discussion of how these fires spread or impacted the state. To assess Minnesotans' adaptability for fire control, it was assumed that when a new program or procedure had been introduced it indicated a belief that the previous system needed improvement in light of recent experience.[25]

A summary of the goals is as follows. This work will provide a concise narrative of the environment and the development of firefighting practices between 1870 and 1920. The work

[25] Celine Herweijer, Richard Seager, and Edward R. Cook, "North American droughts of the mid to late nineteenth century: a history, simulation and implication for Medieval drought" *The Holocene* 16 (2006): 159-171.; James Clark, "Fire and Climate Change During the last 750 yr in Northern Minnesota" *Ecological Monographs* 60 (1990): 135-159.; Peter Boulay, "Historical Drought Overview and Current Conditions" (Rochester: State Climatology Office Ecological and Water Resources, 2016), 1-38.; Donald A. Haines and Rodney W. Sando, "Climatic Conditions Preceding the Historically Great Fires in the North Central Region (United States Department of Agriculture: Forest Service, 1969), 1-23.; Carroll and Raiter, *Fires of Autumn*, 8-9.

will highlight that the attitudes towards the environment lagged behind the development of practices to prevent disaster. A secondary goal will a corrective of how historians have treated these significant fires. Historians almost exclusively blame the railroad for these significant fires. However, contemporaries were just as nervous about hunters starting fires as they were about train sparks. In addition, logging practices and the companies that promote them do not share enough of the blame for these events. Had the logging companies followed fire laws and burned their slash efficiently, the fires would not have possessed as much fuel.

What follows in many ways will be to the chagrin of my local community. I come from the area around Moose Lake, which saw the majority of the carnage of the 1918 fires. This work will do its fair share of myth-busting regarding the fires. For example, the 1918 fires were not the most massive fires; they did, however, kill the most people. The year 1918 was not the driest on record, not even by a long shot. This work will also demonstrate that many of the victims of the terrible flames contributed to bringing on the disasters. In addition, most locals operate on a history of their local fires having a sole cause. It is easier for community memory to blame a singular entity or organization for their tragedy. Unfortunately, the only way to truly understand these fires, like any other historical event is through multiple causality. In other words, many things lead to the forest fires that burned over one million acres of state land. As the following chapters will demonstrate, the railroad may have supplied the spark, but the logging companies provided the fuel. The settler culture brought complacency to the table and climate trends and weather patterns ensured that death would move swiftly across the landscape.

A new history of Minnesota forest fires is needed today because it teaches us the role that human negligence plays in exacerbating the damages incurred by natural disasters. In addition it evaluates how institutions learn from one disaster to the next and prepare for future calamities.

Perhaps most important, is looking at how human negligence and institutional learning are in an often-constant battle over how response ought to be handled. The main point of contention between these opposing forces is whether or not a given disaster is a problem. Should Minnesotan's be prepared for a large-scale forest fire? Or should those that wish to expand their land have every right to light a match? This point of contention bears huge consequences for the modern world just as it did to turn of the century Minnesotans. Should our world be prepared for things like climate change? Or should we be allowed to make reckless changes to our environment for profit? Regardless of whether or not it is 1880 or 2020, the question of how we address environmental problems is essentially the same.

Chapter I

Climate and the Culture of Minnesota

Introduction

The purpose of this chapter is to illustrate the ecological and cultural backdrop of Minnesota from 1870-1890 during a time most Minnesota historians describe as an economic boom. First, this chapter will explain how climatic forces like La Niña impact the climate of Minnesota. Then the chapter will delineate how climate trends impact the fire regime of the state. The chapter will then introduce how human cultures have impacted the fire regime through both Native American land management practices and industrial logging by white settlers. Finally, this chapter will discuss the growth of reform politics in Minnesota including the rise of the conservation movement.

La Niña, Climate, and Minnesota History

It might be a little odd to begin a history about Minnesota in the Pacific Ocean, but in terms of Minnesota's climate, what happens in the Pacific is quite essential. La Niña, a cooling trend of Pacific Ocean temperatures, makes a big influence on North American climate. When La Niña occurs, North America becomes exceptionally dry, and droughts are frequent. During the second half of the nineteenth century, several observable droughts coincided with these La Niña cycles. The three significant drought periods in that latter half of the nineteenth century were 1856-1865, 1870-1877, and 1890-1896. Although significant events surround each period both in national history and in state history, the period to focus on in terms of fire history is

1890-1896. Towards the end of this drought, in 1894, Minnesota experienced its first historically significant fire in Hinckley.[26]

When examining the climate's role in history, it is essential to make smaller arguments instead of broad conclusions on climate's impact on human action. One could argue that climate, in a nutshell, had caused all of the fires in Minnesota's history. On some level this is accurate, but the whole picture is not there. It would likewise be facile to argue that climate did not affect the fires in Minnesota's history. It would be accurate to say that climate had a significant influence on Minnesota forest fires. But, none of these fires would have become historically significant in the memory of Minnesotans had it not been for dry seasons leading up to them. If there was only one dry season and one fire, it could be easy to dismiss the relationship between the two as some unfortunate weather phenomenon. However, when one sees that there were several dry seasons and several large fires in just twenty-four years, one has to make the concession that this is not a weather phenomenon but instead a climate trend.

The other half of the equation is human actions and perceptions about the environment around them. The climate essentially sets up the pins while human behavior knocks them down, creating disaster. If one were to ask a local historian or an avid reader of Minnesota history "what *caused* the fire of 1918?" they would respond that a train spark fell on some dry grass and then a significant portion of Carlton County burned and over four hundred inhabitants perished. However, no *cause* of any event is that simple. Instead, all of these fires started because of a

[26] Celine Herweijer, Richard Seager, and Edward R. Cook, "North American droughts of the mid to late nineteenth century: a history, simulation and implication for Medieval drought" *The Holocene* 16 (2006): 159-171.

perfect concoction of climatic conditioning and human ignorance, negligence, or abuse of their environment.

It is not enough to describe the relationship between La Niña and drought to explain climatic conditioning for forest fires. A few studies have been done on the relationship between Minnesota's local climate and the series of forest fires that occurred. James Clark examined 750 years of Minnesota's climatic and ecological history in order to study Minnesota's fire regime. He concludes that fires occurred more often as one goes forward in time. He surmises that the trend occurred because of the build-up of various fuel sources. Additionally, Clark singles out the period between 1870 and 1920 as a "short term warm/dry period," this period encapsulates all of the historically significant fires in Minnesota as well as almost all of the great fires from the Lake States and the Chicago fire. It is also important to note that this broader period encompasses two of the significant La Niña North American drought periods.[27]

The other half of the expanded period also suffered from various dry spells. The driest year on record for Minnesota was 1910. Between 1910 and 1918 Minnesota experienced dryness near the level that Minnesota experienced during the 1930s Dust Bowl Era droughts. The whole expanded period from 1870 to 1920 was arid. The year 1910 stands out, but as a whole, the period itself was characterized by extreme dryness. For fifty years, the climatic pins had been placed at the end of the alley, and human actions more than once knocked down all of the pins, wreaking havoc upon the state.[28]

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[27] *Ibid,* 159-171.; James Clark, "Fire and Climate Change During the last 750 yr in Northern Minnesota" *Ecological Monographs* 60 (1990): 135-159.
[28] Peter Boulay, "Historical Drought Overview and Current Conditions" (Rochester: State Climatology Office Ecological and Water Resources, 2016), 1-38.

Some other scientists have examined weather data from various weather stations to examine the shorter-term climatic conditions that led up to each fire. These studies reveal that there was a dry period between three and eight months before the fire. Interestingly, the Hinckley fire was the only one with a hot and dry season directly before the conflagration, the other three fires all had cooler temperatures in the months leading up to the fires. However, when one looks at the weather record days away from the fires, temperatures tended to head up, and the humidity decreased. The consensus is that in the lead up to these fires, temperatures matter little, but the precipitation and the humidity matter considerably. In each of these fires the humidity was low and so was the precipitation. The lack of moisture for months and then a downward spiral in humidity paved the way for the great fires. The reason that the fires needed these conditions were that the fuel would be incredibly dry because of the overall lack of moisture in the air and the lack of rainfall to soak the would-be fuel.[29]

Climate played an essential role in setting the conditions for these fires to happen. La Niña influenced the dry periods in the nation. From 1870 to 1920 the state had experienced a significant change in her climate. Throughout this time, Minnesota experienced both severe drought and devastating fires. These fires would change the cultural memory of the state. They would also generate enough political force to enact laws catered to prevention and protection from forest fires. However, that would be a vicious uphill battle for many conservationists, the fight against fire was not just a material one, but a cultural one.

Native American Fire Management

[29] Donald A. Haines and Rodney W. Sando, "Climatic Conditions Preceding the Historically Great Fires in the North Central Region (United States Department of Agriculture: Forest Service, 1969), 1-23.

Prior to European settlement, the Ojibwe lived in the forested regions of Minnesota. The Ojibwe practiced sustainable forest management practices including the use of fire. For the Ojibwe, fire was to be used to work with the natural fire regime to support plant populations. This does not mean that the Ojibwe did not leave their own mark on the landscape. They would clear land to set up their communities. Occasionally the fires set by the Ojibwe burnt out of control. Overall, the Ojibwe's use of fire was sustainable. The Ojibwe burnt in a way that allowed for regrowth. Once Europeans entered Minnesota, they would completely change the fire regime with a new set of abusive practices that increased the rate of fire and decreased forest regrowth. The key difference between the Europeans and the Ojibwe came in the form of industrialized logging. Clearcutting by Europeans left slash that would fuel larger, more frequent fires. While the Ojibwe looked to clear paths for animals and encourage plant regrowth, Europeans sought short-term gain in the lumber industry and the longer-term expansion of farmland for European settlers.[30]

Industrial Logging, Westward Expansion, and "Progress"

Industrial logging began in the late nineteenth century as Americans continued to move westward. It was the belief of many, particularly in Minnesota, that first the ax held by a lumberman would come and trim the natural landscape, then the farmer would clear the cut-over land and plant in the field. This lesser-known ecological aspect of manifest destiny defined for

[30] Lane B. Johnson and Kurt F. Kipfmueller, "A fire history derived from Pinus resinosa Ait. for the Islands of Eastern Lac La Croix, Minnesota, USA" *Ecological Applications* 26 (2016): 1030-1046.; Donald M. Waller and Nicholas J. Reo, "First stewards ecological outcomes of forest and wildlife stewardship by indigenous peoples of Wisconsin, USA" *Ecology and Society* 23 (2018): 1-15.; Michelle M. Steen-Adams, Nancy Langston, et al., "Historical framework to explain long-term coupled human and natural system feedbacks application to a multiple-ownership forest landscape in the northern Great Lakes region, USA" *Ecology and Society* 20 (2015): 1-21.

many what progress looked like: fewer trees, more farms. In order to make progress happen, through the construction of houses and creating the intercontinental connectivity of railroads, it would cost around eight billion board feet of timber in 1880. The lumber for the railroad would have to be replaced every few years. Other aspects of American connectivity like telegraph lines would also require upkeep in lumber. The supply for that kind of lumber demand no longer existed in the east. Therefore, the need for lumber would be extracted from the Midwest in the Lake States, to the far west in Washington and Oregon, plenty more timber would be extracted from the American south.[31]

Logging in Minnesota rose exponentially between 1870 and 1890 and continued as a dominant force into the twentieth century. The growth of railroads in Minnesota helped increase the linkages between the lumbermen and those who wished to buy their timber. The men in charge of these logging companies benefited significantly from various machines that would wreak devastation on Minnesota's environment. Some of these machines even bore cruel names such as the "steam nigger," a machine for rolling logs rapidly. Despite the use of various machines, slash (the leftover branches and tops of trees) would be left on the forest floor. Slashings would become a significant problem in the future, as they fueled every one of the significant fires in Minnesota history. The loggers also gradually incorporated the labor of local Native Americans the Ojibwes. The Ojibwe workers would be given the most difficult or

[31] Jeff Forester, *The Forest For The Trees: How Humans Shaped the North Woods* (St. Paul: Minnesota Historical Society Press, 2004), 25-66. Alice A. Andrews, *Christopher C. Andrews: Recollections 1829-1922* (1928), 284.

dangerous jobs in the camp. The presence and growth of the logging companies in Minnesota lead to both cultural and ecological problems.[32]

Manifest Destiny and Ecological Devastation in Four Acts

Four legal measures by the government promoted westward movement and environmental degradation. The four laws were the Preemption Law, the Homestead Act, the Dawes Act, and the Nelson Act. Lumber barons systematically abused the laws, gaining substantial wealth at the peril of the environment and the risk of the community. Lumber companies grew by having employees claim land under one of the above laws to be turned over to the lumber company. Although technically illegal, lumber lobbies helped promote this behavior in the legislature and, as the primary source of work on the frontier, convinced many settlers that their actions were for the good of all. The laws invited land to be developed, a process which generally leads to environmental degradation. Coupled with the wanton abuse of these laws by lumbermen, both the environment and many communities would become at risk to fire.

Preemption Law was the first significant piece of legislation for promoting American settlement across the continent. The law granted claims to settlers for surveyed land that was not technically a part of the United States. Once claimed, the claimant had to file their claim with the local branch of the General Land Office. Lumber companies would typically claim land with a significant amount of timber on it and cut down that section for their profit. However, the preemption law dictated that a claimant could only cut timber to fuel their fires and build their house. To cut the entire section of land would require a permit from the government. The lumber

[32] Forester, *A Forest for the Trees*, 25-66. Agnes M. Larson, *The White Pine Industry in Minnesota: A History* (Minneapolis: The University of Minnesota Press, 1949), 105-124; 147-164.

companies operated under the assumption that once they had their private property, they would be able to do with it as they please. If law enforcement seized some illegally cut timber, it would go up for an auction; however, fellow lumbermen could keep the price above the buying power of settlers and then return the lumber to the original cutter at a fraction of the cost. Unfortunately, because the secondary sale price would be low, the government could not cost-effectively litigate the issue and thus allowed the abuse to continue.[33]

The Homestead Act created another extensive system for logging companies to abuse. The law was intended to promote farming into the Midwest and farther West, by granting land to farmers for merely settling and improving the land and living there for at least five years. The law was a colossal failure in terms of it being abused by lumbermen. For example, in northeastern Minnesota, over ninety percent of the claims were faked. Lumbermen would pay people to claim tracts of land on behalf of the company. Moreover, lumbermen would use their tremendous resources to either bribe or bully people to get their way. Because of these practices, the U.S. government lost millions of board feet of timber. Whole towns would lose their timber, and the resource lacking land would drop in tax value.[34]

The Dawes and Nelson Acts are arguably the most devious laws exploited by the lumbermen. These laws took authority over Native American reservation lands and gave them to individual persons or families. The practice was known as allotment. Through allotment, lumber companies managed to purchase much of the timber on reservations by buying it from individual tribal members or families. Two Ojibwe reservations, Red Lake and Fond Du Lac, were significantly abused by the lumber barons and likewise these areas or ones nearby were damaged

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[33] Jeff Forester, *The Forest for the Trees*, 19. Andrews, *Christopher C. Andrews*, 276-277.
[34] Forester, *The Forest For the Trees*, 19-22.; Andrews, *Christopher C. Andrews*, 278.

by the great fires. In addition to problems of allotment, laws regarding dead and downed timber inspired lumbermen to set fires on the Red Lake reservation in order to gain rights to cut the timber more efficiently. Fire would render all of the wood unusable even if the tree perished. It was common after a fire for lumbermen to secure lumber rights to salvage what timber they could after a fire. This law tempted many to set their own fires to secure rights to timber. The number of board feet stolen by lumbermen rose several million and cost the Ojibwe at Red Lake over fifty million dollars. Arson became so prevalent on the reservation that the U.S. government launched an investigation into the atrocities, but this inevitably came up fruitless.[35]

To properly understand the ecological devastation these acts brought on, and the substantial risk to communities this entailed, one must look at typical logging practices. The risk of arson is simple enough to understand. An uncontrolled flame can destroy an entire forest or level a town. However, more complex and equally dangerous is the simple collecting of timber. Instead of cutting select trees, lumbermen would cut down each tree. Unusable trees would still be cut in order to gain access to available trees. Also, lumbermen of this generation would remove all of the branches from the tree and leave them where they fell. Two problems arose of these practices. First, seeds for the second growth of forest require shade from other trees and die without it. Due to clear-cutting after the loggers left, the forest would not return. The second problem is that the left-over branches, called slashings, were highly flammable. When settlers

[35] Anton Treuer, *Ojibwe in Minnesota*, (St. Paul, 2010), 36-40.; Anton Treuer, *Warrior Nation: A History of the Red Lake Ojibwe* (St. Paul: 2015), 96-115.; Francis M Carroll and Franklin R. Raiter, *The Fires of Autumn: The Cloquet-Mooselake Disaster of 1918* (St. Paul: 1990), 25.

attempted to build a community in or near this cut over land, they were at substantial risk of fire.[36]

The economic value of Minnesota ecology

Much of the forest region in Minnesota in the early years of statehood were referred to as "The big woods" for its density. The forest was described by early geologists as not easily discernable. Trees were dense and most of the forest region would then thin out towards the prairie regions of the state. The clay-rich soil and the favorable climate gave rise to the health of the forest region covering two-thirds of the state. Minnesota contains some pacific coast species of plants not found east of the Mississippi and other species not found west of the same river. As a result, Minnesota possessed an unassuming variety of vegetation.[37]

Minnesota forests had an essential variety of trees over the fifty years from 1870 to 1920. Three of the most important were white pine, Norway pine, and burr oak, all of which were top-selling for commercial use. Cedar trees in Minnesota were harvested for railroad ties to maintain and expand the interconnectivity of the state. Spruce and aspen became the chief source of pulp for papermaking. Despite the variety of uses for the variety of trees, pine was harvested most aggressively. After decades of cutting, there was a considerable amount of cutover land. By an estimate in 1900, ninety percent of the cutover land had burned over.[38]

Fire

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[36] Andrews, *Recollections of Christopher C. Andrews* 278-279. Christopher C. Andrews, *First Annual Report of the Chief Fire Warden* (St. Paul, 1896), 170.
[37] N. H. Winchell and S. F. Peckman, *The Geological and Natural History Survey of Minnesota, For the Year 1873* (Minneapolis, Harrison and Smith State Printer, 1893), 210. Warren Upham, *Catalogue of the Flora and Fauna of Minnesota* (Minneapolis: Johnson, Smith, &Harrison, 1884), 12-14.
[38] H. B. Ayres, *Timber Conditions of the Pine Regions of Minnesota* (Washington: Government Printing Office, 1900), 680, 684.

The ecological degradation created by the logging communities was significant. The loggers, through their various legal and extra-legal methods generated a significant amount of fuel during a fire prone climatic trend. A fire then ensued over various regions across the state. The nature of fire changes based on what is being caught fire. The fire travels in the direction of the things that fuel it. If fuel leads to the center of town by a lumber mill, the fire will follow that trail of fuel into town and consume it. If fuel leads deeper into the forest, the fire will travel deeper into the forest. If the fuel for whatever reason stops, so will the fire. In nature, fire generates significant heat and transforms its fuel into chemicals that can be absorbed by the vegetation that grows from it. While one thing is destroyed, another is created. Fire follows a simple rule; any increase in fuel will increase the likelihood and the power of fire.[39]

Knowledge of forest fires in Minnesota can be stretched back to the fur trading period. H. B. Ayres, a researcher for the department of interior listed in his report a myriad of fires that had occurred previously. Ayres had surveyed trees throughout Minnesota and noticed evidence of burns on several ancient trees. Some of the older trees were a century or older and possibly grew out of a fire before their seeding. Ayres noted that there were a handful of intense fires in Minnesota's northland before the first historically significant fires. The first occurred in 1840 north of Red Lake. Two others occurred in 1860 and 1878 near Tower. Ayres concluded that fire had always been a dominant force in the pine region of Minnesota. The essential difference between these fires and later fires is that the later fires killed people. The other fires might have been seen, or smoke from them might have been seen, and resources might have been destroyed, but no people perished. Prior to logging, fire would occur as a natural re-fertilization of the soil.

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[39] Stephen Pyne, *Fire in America: A Cultural History of Wildland and Rural Fire* (Seattle: University of Washington Press, 1982), 59-60.

Fire would burn a forest and provide new nutrient rich soil to grow a new forest. Once logging came to Minnesota, cut-over land would provide fuel for more frequent fire, but less nutrients for a new forest growth.[40]

In 1900, it became a significant concern that fire would utterly decimate the timber yield. Significant chunks of land between Red Lake and Lake Superior had lost the majority of their timber. In some burned over regions tiny clusters of trees would survive only to become targets for the lumbermen who would ‘salvage' them. The fire would follow any amount of cutting done in a former forest. Stump land and cutover land would be burned over. Any tree missed by the ax would be consumed in the fire, including all seeds that would promote new growth for the forest.[41]

Fire and industrialization together posed a significant problem for Minnesotans. Industries abused both people and the environment in the name of profits and expansion. The systematic abuse of the environment led to an increased risk of immolation. Industrialists accumulated wealth and slash and fire capitalized. The rampant environmental degradation of the landscape alongside with the risk of fires helped to fan the flames of the conservation movement. The conservation movement would promote the concept of a "timber famine" to attempt to slow down the egregious cutting of trees and to control the supply of forests more thoroughly. More interestingly, one of the principal concerns of the Minnesota conservation movement, was the prevention of forest fires. [42]

Growth for the state

[40] Ayres, *Timber Conditions of the Pine Regions of Minnesota*, 685.
[41] *Ibid*. 687.
[42] Pyne, *Fire in America*, 206-207.

The period leading up to and including some of the great fires is universally described as an economic boom by historians. In the period between the end of the American Civil War and the dawn of the twentieth century, Minnesota hits its peak development boom. During this period, Minnesota transitioned from something more akin to a pioneer territory to a modern, sophisticated state. The major industries of mining, logging, and farming started to take off significantly. With the rise of these industries, Minnesota's economy grew quickly and its population rose substantially. A brief survey of this period in state history will provide an essential cultural backdrop for the debates surrounding the fires.[43]

Like other areas in the United States, Minnesota's industrial boom went hand and hand with a gilded age. Illegal dealings by the lumber and railroad barons reduced Minnesota timber significantly. Minnesota had its problems with political corruption. However, many politicians considered one reform or another as a part of their political campaign. Two of the most popular reforms in the era were the temperance movement and securing women's suffrage. Much of the economic success of the state came from the interconnectivity generated by the railroad as the railroad moved throughout the state, it created jobs that would bring in immigrants. These immigrants would then perhaps settle in one of the many railroad towns and produce the wheat on their farms leased from the railroad lands. By the end of 1872, Minnesota had managed to generate two thousand miles of the railroad linking people on the fringe of the state with the markets in St. Paul and Minneapolis. By 1920, Minnesota would have nine thousand miles of the railroad connecting the state.[44]

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[43] Theodore Blegen, *Minnesota: A History of the State* (Minneapolis: University of Minnesota Press,1963), 358-371
[44] *Ibid*, 285-295. William Lass, *Minnesota: A History* (New York: W. W. Norton & Company, 2000), 135.

The railroad recruited immigrants to construct the railroad and settle in towns along the track. The primary immigrant groups for Minnesota rail lines were Irish and Scandinavian laborers who sought pieces of land. The railroad utilized colonization programs to bring the immigrants to the state. Some programs involved providing cheap transportation to the state and the building of temporary housing for newly introduced immigrants. The immigrant population became markedly more cosmopolitan in the following years to include many people born in central and eastern Europe. While the railroad incentivized many immigrants, many came to engage in opportunities for lumber. Among the many lumbermen, were a sizable portion of Norwegians who sought to reach the American Dream by clearing forest land. Other Scandinavians settled the plains of Minnesota in hopes of making their fortunes on farmland.[45]

For many Minnesota immigrants, it became difficult to make their living on a farm in the plains regions of the state. They faced significant environmental problems. The ground had a variety of thick roots because of the prairie grasses that needed to be broken up by the plow before they could hope to plant anything valuable. To do so, this would take more than a season of tilling the land. Additionally, these farmers had the difficulty of not having access to woodlands in order to construct and heat their homes. The farmers had to utilize animal waste in order to cook their meals and tend to the fire. The government-aided them by creating the Timber Culture Act, which aimed to change the ecology of the region.[46]

The Timber Culture Act was an attempt to improve the ecology of the land through the law. Essentially, it required farmers in the plains to plant trees on their homestead claims. The homesteaders thought the initial requirement of one-fourth of their claim would be a little steep

[45] Blegen, *Minnesota*, 300-326.
[46] Lass, *Minnesota*, 119-120, 135-137.

and the law had to be reduced in later years to one-sixteenth of their claim. Minnesota created the additional incentive for farmers by offering them two dollars per acre of saplings per year. Farmers worked diligently to plant trees on the plains making their existence there more comfortable. This improvement culture ended up changing the prairie regions of the state significantly. The area once filled with grasses was now broken up, trees were planted, and farms were started. The ecology of the region would never be the same after it was touched by "American progress."[47]

The lumber industry was arguably the most important for the growth of the state. Much of the economic potential of the state involved the cutting of trees. If one were to farm, trees would have to be cut in order to plant crops. If one looked to sell lumber, it would be plentiful in the northern part of the state with a hub in Duluth. Lumbermen had begun their march west generations earlier but had picked up the pace of their efforts as they reached the Lake States and saw what they believed to be an unlimited number of trees. Lumbermen were not the only people moving west. The nation was moving increasingly westward, but not all of the west had trees. Without trees, one struggled to build a railroad or cheap houses. Thus, Minnesota's chief wealth came from supplying wood to other states and territories that lacked those resources. Wood from Minnesota built many Midwestern Metropolises including Omaha and Des Moines.

One of the essential jobs in the lumber industry were timber cruisers. Timber cruisers were responsible for venturing out into the forest and finding good allotments for the lumbermen to cut. They had to determine where the camp would be and how the men would move the logs from one place to another and bring them either to a rail line, specifically for lumbering, or to

[47] *Ibid*, 119-123.

find a waterway that would allow them to send logs to a valuable market. The company would mark their logs with a specific symbol to ensure identification later on. Timber cruisers would become a concern of the fire wardens and sometimes victims of forest fires because of the reckless habits of the industry, including slash accumulation and untended campfires.[48]

A considerable amount of the lumbermen operating during the lumber boom were of Scandinavian origins. Many of them settled in towns specific to their national group (Norwegian, Finnish, Swedish) and formed communities dedicated to logging in the northland. They found themselves comfortable in contributing to the logging industry and achieving wealth for their town which was focused on their cultural heritage. Many of these immigrant towns would become areas devastated by the various fires. In particular, the 1918 fire would devastate several immigrant communities in Carlton County, some of which never recovered.[49]

In the eyes of most Minnesotans of the period, conservation need not be in their vocabulary. Lumbermen unapologetically cut timber from large plots of land while farmers planted successive crops of wheat. The wheat crop would remove significant percentages of the soil's resources for later crops. It was inconceivable that Minnesotans would never have a fertile soil for their crop nor a valuable forest to produce cords of timber. Many lumbermen and contractors appreciated pine as a building material because its abundance made it both cheap and secure for building houses in perpetuity. The first eyes towards conservation in Minnesota came as a result of significant fires. The fire could move over a far greater territory and at a far faster rate of speed than a lumberman so it got in the way of potential profits. The potential for the fire

[48] Blegen, *Minnesota*, 345-346.
[49] *Ibid*. 346.

made many lumbermen take a reluctant and conservative stance on attempts at conservation in Minnesota. For these men, the chief nemesis of the conservation movement was fire.[50]

Minnesota benefited significantly from the money that lumbermen brought to the state. Capital generated from the sale of lumber stimulated the growth of manufactures, increased the breadth of the railroad, and contributed to the rise of the flour industry. Lumber money did important work in the economy and likely assisted in the creation of political policies that supported the industry. These policies would become famous in the legislation of forest fire prevention (see chapter 3). One of the new and increasingly important economic centers of the state was Duluth. With its access to raw timber in the northland and its access via the Great Lakes to various markets, Duluth became a vital organ in the economy of the state.[51]

The most important man among the Minnesota lumbermen was Frederick Weyerhaeuser. Weyerhaeuser came from Germany to the United States and began his lumber business in Illinois before moving progressively northwest into the Lake States. Weyerhaeuser belongs both to the group of central Europeans that were steadily moving to Minnesota as well as one of the many lumbermen that chopped their way westward. His success came in part from his ability to organize cutting and to manage many land tracks for the cutting of timber. His organization grew exponentially, and he became one of the most asset-rich lumbermen in the entire country.[52]

After 1900, the production of lumber in Minnesota steadily declined. Part of the reason for this was the changing sources of timber in the state. Lumbermen had to move increasingly north to achieve the same level of production they previously enjoyed. Lumbermen began to

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[50] *Ibid*, 327-333.
[51] *Ibid*, 333, 338.
[52] *Ibid*, 341-342.

transition westward to a newer abundance of timber while production in Minnesota slowly stagnated. By the time of the 1918 fire, lumber production had become less than a shadow of its former glory. Some decided to focus less on lumber and more on making paper in order to make ends meet. Throughout the transitional decades of the state, the lumber industry rose, transitioned west, and transformed to meet new ends.[53]

Alongside the ecological and economic backdrop of state history, it is essential to note the political momentum of the people inhabiting the state. As mentioned above, the state had its fair share of political corruption. That corruption led to the development of political ideas and movements against corruption and promoting a variety of reforms. Minnesota was home to farmers that were struggling with the current way of life. They were told they were coming to a land of ease and plenty, but instead met with plenty of hardship. Industry became the enemy of the small farmer, and the ability for the farmer to make money became hampered by industrialists. Farmers like Oliver Hudson Kelley soon founded organizations to protect farmers from these industries. In particular, the National Grange for the Patrons of Husbandry helped band farmers together against the railroad.[54]

In the 1880s, the Granger movement was followed by a political group called the Farmers Alliance. The Farmers Alliance's popularity rose and fell depending on how well the farmers were faring. Other political groups like the Knights of Labor found a similar home in Minnesota fighting against industrial dominance of workers. Both the Knights of Labor and the Farmers Alliance possessed a roller-coaster relationship with the Republican party that produced some

[53] *Ibid*, 343-345.
[54] Lass, *Minnesota*, 168-169.

success and some problems. Out of the discontent came the rise of the People's Party, which had a varying success of its own at both the national and local levels.[55]

In this same era of progressive politics, the Conservation movement rose. While some lumbermen conservationists were only concerned with fire, other conservationists saw themselves as adversaries of the lumbermen. A divided movement made for slow progress. Those with lumber interests were the primary force stymying any effort for genuinely radical reform. Many Minnesotans believed that their chief economic contribution would be farming. All they would have to do is remove all of the trees first. The idea that progress was defined by farming hampered the growth of the conservationist movement. This was especially true when it came to preserving forests that could be used for farming; thus, the general thrust of the conservationist movement focused on fire prevention. Thankfully for Minnesota forests, conservationists were able to use the language of fire prevention and still position themselves against lumber interests by working to remove slashings from logging sites during the lumber season.[56]

Promoting Minnesota and Its Climate

Many organizations and authors worked diligently to lure immigrants into Minnesota. Immigrants would be needed to help build the railroad, and to give the state more economical and political power. One of the siren authors was Ledyard Bill, who wrote a book about Minnesota's climate to bring in immigrants. In this work, Bill attempted to convince people that above all of the other states that they could live in, Minnesota stood alone for having the best

[55] *Ibid*, 169-175.
[56] *Ibid*, 207-208.

possible climate. Bill took a peculiar stance, arguing that Minnesota's climate was the best because it was dryer than the other options.[57]

Much of Bill's argument for moving to the dryer climate in Minnesota involves contemporary beliefs about the climate's impact on human health. By the 1870s, it was believed by many that going to the northwest would provide better air for its settlers and that if an ill person were to move there, they might have some hope at curing their condition. Bill capitalized on this notion in his work. He even went as far as describing the Eastern states as "malarious localities," in an attempt to make Minnesota look more appealing by comparison. Bill utilized a 'cosmopolitan' argument to reinforce these notions. For Bill, Minnesotans that were originally from a variety of other states was sufficient evidence that the climate was valuable. For Bill, there were too many varying cultures and institutions in Minnesota to shape the state in favor of one group or another. It was not too full of New Englanders nor Southerners to shape the practices of the state one way or another, but instead, the climate and its healthy nature drew in people from all regions.[58]

Bill led many to believe that Minnesota had a goldilocks zone climate. He claimed that the region was known for its variety of weather, but that was an objectively good thing. If the weather varied, it meant that the climate could never be too cold or too warm nor too wet or too dry. Bill asserted that the varying weather allowed for the climate to support a unique variety of flora and fauna that the immigrant could appreciate and benefit from this situation. Comparing Minnesota to New England, Bill notes that Minnesota received roughly half the rainfall of places

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[57] Ledyard Bill, *Minnesota; its Character and Climate. Likewise, Sketches of other records favorable to invalids; together with copious notes on health; also hints to tourists and emigrants* (New York: Wood and Holbrook, 1871), 11-12.
[58] *Ibid*, 12-14.

out east. For Bill, and at least a few of his readers, Minnesota was healthier than the East coast because settlers would be less likely to develop lung diseases. According to the medical knowledge of the period, moving to a dryer place like Minnesota might even ameliorate the conditions of people suffering from various lung problems.[59]

Bill cushioned his argument about the dryness in Minnesota to alleviate the concerns about any would-be farmers. He assured potential farmers that any rain that fell came at an optimal time for farming. Snow would melt wetting the ground for planting in the spring and rain would sustain the crops through the summer. All the while, Minnesota would continue to be in a goldilocks climate for the betterment of all of her inhabitants. For those worried about winter, Bill claimed it was not harsh at all and that there would only be a few days where one could potentially need to stay inside. Bill claimed that lumbermen did not wear coats in the winter and often would sweat throughout the season. Even the worst parts of Minnesota, according to Bill, would serve as a boon to many.[60]

Bill organized the "dry season" in an essential way in regards to what would become the four major fires in Minnesota history. For Bill, the dry season was "from about the middle of September to the first of May." These parameters contain two of the great fires and are only weeks away from containing the other two. Also, May 1st would become the last day that slash would be able to be burned. Although Bill correctly asserted that the fall was dry, he dropped the ball in terms of spring. Additionally, two of these significant fires occurred before his dry season started. Other historians have noted how Bill and others more or less tricked people into moving

[59] *Ibid*, 58, 66.
[60] *Ibid*, 68, 71.

to Minnesota and that the environmental reality was very different from what they were told. Major fires are another brutal example of that problem.[61]

Bill's work provided a sharp contradiction about the climate of Minnesota. In an attempt to assuage any concerns about his use of comparison between Minnesota and California to describe summer heat, Bill claims that the Minnesota air did not have the same humidity. He argued that the dry Minnesota air made the hot summers more pleasurable than the humid and hot summers of California. However, one cannot have a lack of humidity in the air and simultaneously have most of the precipitation for the year come at the same time. Additionally, as mentioned above, the humidity plummeted right before each of the major fires. If the humidity were low during the summer and into the fall, it would be dangerous for the settlers of Minnesota. Unfortunately, Bill told them otherwise. It is unclear how many people actually read Bill's book. It was a part of a genre that became a popular tool to recruit people to settle in Minnesota and is the only one that focuses on climate as its specific hook.[62]

In addition to discussing the climate of Minnesota, Bill highlighted the critical cities in Minnesota. Among the cities with a dedicated chapter was Duluth. Bill described Duluth as the embodiment of manifest destiny, calling it a "marvelous illustration of the rapid growth, in population and power, of the American people." Bill described the area that once was Duluth as "nearly impenetrable forest," before it was all cut down and Duluth was built. In Bill's words, one can see that many saw nature as something over which to triumph. Duluth as a city was considered to be an improvement on what was once virgin forest lands. If one wanted to be

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[61] *Ibid*, 76. Blegen, *Minnesota*, 304.
[62] *Ibid*, 83. Around one-hundred copies of the 1871 edition were printed. *American Book Publishing Record Cumulative, 1876-1849: An American National Bibliography* (New York: R. R. Bowker Co., 1980), 322.

among those demonstrating the greatness of American exceptionalism and actualizing manifest destiny, they could join those already doing so in Duluth.[63]

Bill further demonstrated perceptions of nature through his comparison of the area before and after the settling of Duluth. Before Duluth, the area was a "wilderness…wrapt in mystery," and after the town was built, the area had "blossomed into life." Bill created a dichotomy between nature and cities. The former having negative qualities that needed to be hewn away. The latter being the ultimate marker of progress where the sky was the limit. To encourage settlement in Duluth, Bill described the city as still young but also argued that it possessed all of the amenities of any city far older than it. In other words, there would be space and comfort, not to mention prime real-estate by the water for incoming immigrants to populate.[64]

Bill highlighted many things to do in terms of work in the city of Duluth, namely lumber interests. Bill described the area as being limited by the forest and that lumbermen had plenty of work on the outside of town so that the city may continue to grow and to develop more pleasant sights than trees surrounding the town. Also, Bill described Duluth as empty of the lazy. He claimed that the entirety of the town was full of bold hard workers and that they all were "industrious and moral." Bill appealed to the general idea that morality was equivalent to hard work and progress. It may not come as a surprise that Duluth became a significant hotbed for anti-conservation attitudes, given Bill was working hard to recruit people of that mindset.[65]

Bill suggested that Duluth would become a vital economic hub due to its location and as a port city. It was the farthest west of the Great Lakes ports, and conjunction with the Lake Superior

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[63] *Ibid*. 175.
[64] *Ibid*, 176-177.
[65] *Ibid*. 177.

and Mississippi Railway exponentially assisted in the wheat boom happening throughout the state. Bill claimed that the increase of the interconnectivity of the state through railroads and ports providing access to new markets would generate "a new era in the agricultural interests of the state." If farmers were to come to Minnesota, they would be able to make a considerable amount of wealth by growing wheat for distribution throughout the state and the nation.[66]

Bill argued that the only industry Duluth needed was lumber. Bill claimed that anyone could have success in the lumber industry in Duluth because the trees had barely been touched despite the cutting that had already occurred. Anyone cutting pine for lumber could have ready access to water to ship the logs to one of the many important markets. Moreover, Bill exaggerated the plentiful quality of lumber in the region, convincing some that they would have ample opportunity to profit off the cutting of timber in Minnesota.

Bill and many others luring immigrants to their siren song managed to bring many people to both northern and southern Minnesota. Many shared Bill's suggestions about manifest destiny. They believed that humans needed to triumph over and improve upon nature. They sought to remove the forests which were 'in the way' and to replace the area with farmland for the growing of wheat. Those who came to the state learned that the climate was not what they were told, growing food had plenty of environmental hazards, and that fire would become a pervasive problem.

Conservationist Culture Wars

Conservationist thinking in the mid-to-late nineteenth century did not flow well with the dominant view of a manifest destiny. For the various settlers and industry men moving to

[66] *Ibid*. 180.

Minnesota, the goal was to shape the earth as they saw fit. They were to render existence in North America more convenient for their fellow Americans. They would do so by cutting trees, clearing land, transporting lumber to the plains for houses, cultivating harvests and "civilizing the Indian." Once the land had become more convenient for their living, these followers of manifest destiny would claim that they had improved their surroundings in the name of American progress. Conservationists, on the other hand, would see many of these things as unfavorable. What one man called manifest destiny, another called the wanton destruction of the world. For Conservationists, the goal was not to remove all of the trees but to generate a sustainable use of them. However, sustainable use of trees requires their presence, and in the mindset of a follower of manifest destiny, trees in the place of farmland was a step backward.

One of the more critical thinkers of the conservation movement was George Perkins Marsh. In 1864, Marsh published a substantial volume on conservation ethics entitled, *Man and Nature; or, Physical Geography as Modified by human action*. In this work, Marsh describes human action as inherently destructive, and that westward expansion under the moniker of manifest destiny was nothing more than humans working to satisfy their "appetites." If the United States and its citizens wantonly gave in to the allure of their appetites, it would be difficult in the eyes of the philosopher to refer to them as civilized. The conservation movement and its thinkers, in order to push back against a culture of waste, had to generate their moral authority and did so through pushing the idea that a nation that gave in to their appetites could not be civilized.[67]

[67] George Perkins Marsh, *Man, and Nature; or, Physical geography as modified by human action* (New York: Charles Scribner, 1864), 35-41.

Marsh dedicates a small portion of his work to the degradation of forests. He argues that there is a significant temptation by farmers to set the whole forest ablaze in order to create more fertile soil for their crops. Marsh believed that two different results would come out of the destruction of so many forests, a change in how the landscape worked, and a change in the weather in the area that had lost its forest. Something Marsh did not contemplate but would become increasingly evident by other conservationists was that the cutting of forests leads to an uptick in devastating fires. Marsh's goal here was not to belittle those that were rampantly destroying forests to make way for progress, but instead to push the idea that forests had beneficial qualities for the humans who lived near or in them.[68]

The most important member of the conservation movement in Minnesota was Christopher Columbus Andrews. Andrews had such an exemplary career that it is impossible to cover everything without being absurdly brief and it is an utter shame no biography exists of his life. He was born on the east coast in 1822 and spent his young adult life as a lawyer there. Eventually, he joined many other Americans in their westward movement and settled in Minnesota. Shortly after Minnesota gained its statehood, Andrews would lead volunteers to enlist in the Union army for the Civil War. During the Civil War, he rose to the rank of Brigadier General and spent time in a Confederate prison camp. Once the war was over, he served as a U.S. Ambassador to Sweden and held an advisory position in Brazil. It was not until the tail end of his life that he invested considerable time into conservation. As a conservationist, Andrews pursued the passing of laws in Minnesota and served as the chief fire warden, forest commissioner, and secretary to the Forestry Board. Andrews was among the most dynamic

[68] *Ibid*, 134-144.

figures in Minnesota's history and was certainly the most important for Minnesota conservationism.[69]

Of all the fantastic things that he did in his long life, Andrews claimed that the most significant thing that he had ever done was dedicate himself to conservation. He had learned about scientific forestry from his time in Sweden and lamented how the United States had no equivalent organization. Instead of cultivating healthy forests, lumbermen cut them down. Even though he had learned about scientific forestry in Sweden, he had written in defense of conservation measures previously. In 1856, Andrews wrote the *Boston Post* to share his ideas. For Andrews, "Timber is a fundamental element of colonial growth," a precept that he would lead within all of his affairs. Andrews saw lumber as essential for the creation and the sustainability of any great nation. Therefore, one could not destroy all sources of a valuable resource and expect to maintain status.[70]

In this same *Boston Post* article, Andrews addressed the various abuses of the Preemption Law. Andrews, writing from his experience as a lawyer, argued that people's understanding of Preemption was wrong. Many believed that once they had a preempted claim to the land that they could cut as much lumber as they needed. Andrews pointed out that the law provided enough timber rights for the construction of a home and the ability to keep one's hearth heated. Of course, those restrictions are incredibly vague, and one's "building needs" could vary significantly based on what they would be doing with their land. Andrews further lamented the various lumber abuses and claimed that even if the seizure of illegal timber could enforce the

[69] Andrews, *Christopher C. Andrews*, 1-300.
[70] *Ibid*. 275. In most of Andrews future pleads for preserving the forests and preventing fires, he will lead with an assessment of the monetary value of the forests of Minnesota.

law, it would easily be found returned to the hands of the perpetrator through a myriad of loopholes.[71]

It was not until he spent time in Sweden observing the forestry school there, that Andrews had gained his passion for conservationist action. In 1872, Andrews published a report of forestry in Sweden for American audiences. Four years later, in 1876, he helped to create the Minnesota State Forestry Association. This organization was the first of its kind in the nation dedicated to forestry. Another four years later, in 1880, Andrews compared the number of forestry schools in the United States to that of Europe. While Europe contained thirty such schools, the United States barely graced the single digits in the same institution. In that same year, the St. Paul Chamber of Commerce created a committee to seek a congressional donation of land to build a forestry school.[72]

Andrews and the committee fought vigorously to create the forestry school. The committee believed that the school should be in conjunction with an agricultural college. The reason for this connection was that the committee was convinced if the school was placed strategically; it may have a better influence in creating laws that limited timber waste and create general intellectual respect for the forests. Andrews wrote several college administrators to hear their opinions on the creation of such a school. Andrews received many positive remarks about the establishment of a forestry school but received pushback from others. In particular, Charles Elliot and C. S. Sargent of Harvard believed that the school would be far too specific in its goals

[71] *Ibid*, 275-276.
[72] *Ibid*, 277; 283.

and thus not be feasible due to poor attendance. However, the school would be successfully built and exists today as a part of the University of Minnesota.[73]

The establishment of the forestry school would be a decisive victory for the conservation movement in Minnesota. However, the culture of waste was still running rampant, to the detriment of the forests. Many towns that used to be settled nicely in the forest would find themselves stripped of trees and likewise the possibility of using trees to accumulate wealth. The government could no longer tax them as much because an essential asset to their property had been removed. The commissioner of the general land office would lament that the country, "had been robbed of millions of acres of timberland by fraudulent use of homestead laws, soldiers additional homestead, and half-breed script." The land having been stripped of its timber was being considered a "national calamity" as the forests were being stripped bare. Much more would need to be done in order to save the trees.[74]

The conservationists latched onto the concept of a "timber famine" as quickly as they could. By 1877, the Secretary of the interior had claimed that the whole of the timber in the United States could sustain the excessive needs of the nation for no more than thirty years. If the United States were to survive, it would need to find a way to manage its appetite for lumber. Either they needed to build fewer houses and limit the connectivity given by the railroads and telegraph lines, or they needed to find a way to sustain the forests in a way that would allow them to harvest lumber in perpetuity. The conservationists would choose the latter.[75]

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[73] *Ibid*, 279-283.
[74] *Ibid*, 278-279.
[75] *Ibid*, 284.

Many Minnesotans would push back viciously against conservationist reform. Lumbermen, in particular, would fight hard to preserve their right to cut land indiscriminately. Many lumbermen would argue that the taxation on timberland was far too high. If there were no more trees on the land, its value, and thus the taxes paid on that land would decrease. Therefore, lumbermen were cutting timber rapidly because the taxes on the land were too high for them to pay and gain nothing in return. Unlike farming, which could pay someone annually, trees took generations to grow before someone could turn a profit. Lumbermen did not feel they should pay taxes on something they would never see the dividends of and thus chose to cut timber rapidly.

Lumbermen also claimed that the risk of fire would push them to cut timber rapidly. They argued that fire would destroy the valuable lumber that they could cut and sell. Therefore, they needed to cut the timber before the fire ruined their chance to profit. They cut timber rapidly and the increase in cut over land meant that the risk and the rate of fires increased significantly. This argument was fueled by ecological change that had taken place because of logging. The lumbermen were worried fire would ruin their chances at profit, while the very act of them cutting over vast quantities of land made that land more susceptible to frequent fires.

The ironic part of this argument was that far too many lumbermen moonlighted as arsonists so that they could partake in abusing dead and down timber laws. In case of a fire, lumbermen would be sent in to cut down any salvageable trees afterward. In this way, lumbermen could make some money instead of no money if they could not gain the timber rights to a particular plot of land. Arson was practiced by lumbermen on Native American reservations to gain access to their timber. Some newspapers have also reported that lumbermen arsonists

were the cause of the Hinckley fire in 1894. Lumbermen managed to convince many people that the threat of fire was so significant that the rapid cutting of the forest was required for security.[76]

Many newspapers became voices against conservation. Most of these newspapers were from the northland, Duluth and Ely, in particular. When conservationists pushed to preserve the Boundary Waters, the *Ely Times* pushed back harshly while Duluth created petitions that disagreed with preserving the area. The argument by many of these newspapers and groups was that the area targeted for preservation had significant resources that could be utilized by settlers that wanted to make something of themselves. The *Duluth Weekly Herald* had attacked Andrews, and the conservation movement, seeing them as enemies of the lumbermen and thus speed bumps to progress.[77]

Although significantly late to the conservation movement, conservationists managed to win over a few lumbermen to help fight their causes. These lumbermen had realized that the only way they could sustain their wealth was by sustaining their means of procuring it. If they had not done so, they would ultimately lose out on what they believed was the "American dream." The most notable convert to the conservation movement was Frederick Weyerhaeuser. Weyerhaeuser and Andrews would communicate each other's ideas and give reference to each other through various talks and correspondences as they actively pursued conservationist measures. On some level, it would appear as though the fight was over, but in fact, the cultural war between conservationism and manifest destiney would last decades into the twentieth-century and cost hundreds of lives.[78]

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[76] Larson, *The White Pine Industry in Minnesota*, 342. Forster, *The Forest for the* Trees, 113-114.
[77] Larson, *The White Pine Industry in Minnesota*, 263-264.
[78] *Ibid*. 346. Weyerhaeuser would reference bills being pushed by Andrews in the Minnesota legislature during talks on conservation on the West Coast. These speeches would be quoted by Andrews arguing that he has the support of

In August of 1894, Andrews would go to the American Forestry Association to give a presentation. He addressed the conference on an important topic, the prevention of forest fires. It would be exactly nine days later that the city of Hinckley, in Pine County Minnesota, would cease to exist. Over four hundred people would perish in flames, and many would be left homeless. It would be the first in a series of terrible fires that would devastate the landscape of Minnesota and change a fundamental aspect of its character permanently.[79]

Conclusion

Throughout the fifty years between 1870 and 1920, one can easily see a sharp contrast in the scientific reality and the cultural perceptions of the era. On the one hand, the environment was susceptible to large fires and droughts. The climatic changes caused by La Niña led to a significant dryer climate, this coupled with lack of rain and the nature of fire as the force that reinvigorates plant species across the state would be a complicated set of environmental conditions for any group of humans living in the area. The natural fire regime was an important part of state ecology that provided rebirth and regrowth for forests.

However, with humans in the area manipulating the environment, the results of the natural course of ecological events would be much more severe. Fires had existed in the area far before white settlement, but it was accelerated by the presence of whites in the area. It was not so much the technology that they brought that would increase the frequency of these disasters, but the cultural views of the environment that they brought with them. In particular, the notion that

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prominent lumbermen. Andrews also has on at least one occasion asked the advice of Weyerhaeuser on crafting laws regulating lumbermen. See his recollections, 286.

[79] Andrews, *Christopher C. Andrews,* 285.

the environment needed to be conquered and improved would result in havoc for the population beginning to settle in the region.

The belief of whites that they could shape and exploit the environment to fit their needs because they were the "master," led to a profound ecological change in the state. They took trees away from where they were supposed to be and then placed others where they were not supposed to be. While the latter would help combat the intense winds on the prairie, the other would increase the vulnerability of fire to a given region. It would not help the settlers that they would found their towns of wood on the cut-over land that would be liable to burn. The placement of their towns and farms, their pillars of progress, would inevitably lead to the destruction of those same pillars.

In addition to a culture that exploited the environment in the name of progress, whites also possessed cultural attitudes that generated a significant amount of waste. As loggers cut their trees, they left behind a tinderbox, as farmers grew their wheat they left terrible soil, as hunters and fishers went about their sport they left campfires unattended. These wasteful tendencies would create a vulnerable society in the context of the natural ecological processes influenced by the climatic phenomenon of La Niña. These particular attitudes would have remarkable staying power throughout the half-century and lead to the death of around one thousand people.

To combat these attitudes required a movement, a plethora of people that would attempt to push back against the cultural attitudes of the era. The Conservation movement would have to fight a cultural battle, but also a series of legal ones. While many writers would work as hard as they could to change the attitudes of people towards the environment, any real change would require legal action. To try to convince the legislature to do anything would take a profound

argument or an event. In many cases, the movement was divided. While many wanted to protect the forests of the state from the lumbermen, others wanted to continue to log but protect the forests from fire. Because the conservation movement was not united, it struggled to gain traction amongst a people that prided themselves with what they saw as "progress" or the legislature that governed them.

Unfortunately, the prevention of fire would become the united voice of the conservation movement in Minnesota. Not because everyone agreed that the fire was terrible. Most individuals were using flames as a "tool" of progress. Instead, it would be an event that led to the first significant legislative changes brought by the conservation movement. On September 1st, 1894 the city of Hinckley would lose around a third of its population in a single day. The fire would devastate Pine County destroying Hinckley and several surrounding smaller townships. It would become known as the first of four significant fires. Each fire would have its triumph and failure in changing these cultural attitudes towards the environment. Programs would be created, they would be defunded, and successive tragedies would continue.

Chapter II

The Great Hinckley Fire and the Creation of the Fire Warden System

Introduction

This chapter possesses two main goals. The first is to demonstrate that the ambivalence of Hinckley settlers towards fires led to a lack of preparedness when the 1894 fires struck. The lack of preparedness and institutions to fight fire lead to the several stories of reactionary personal acts of heroism. The second goal is to provide a history of the early fire warden system which was created in the aftermath of mass death at Hinckley. This chapter provides evidence for the central argument of this thesis by demonstrating the poor preparation of the Hinckley settlers and the poor reception of the first program created to ensure that mass death would not come to other Minnesota towns.

Tragedy and Heroism at Hinckley

Hinckley and the surrounding townships were known for their lumber interests. These towns came out of massive pine forests that used to dominate Pine County, Minnesota. Many lumber companies sought their fortunes in the area and the risk of forest fires were assumed by many inhabitants. One of the reasons that the Hinckley fire of September 1st, 1894 would be so devastating is that so many people ignored the signs of danger. From the perspective of our present era, it seems obvious that such a tragedy was bound to happen. However, to the inhabitants of Pine County and Hinckley in particular, it was not all that obvious that they were going to perish in a great fire. For them, forest fires were a run of the mill experience. They knew

fire would come every single fall season. They just thought that, like every previous year, the fire would be easily contained and they could move on with their lives.[80]

The official history of the Hinckley fire reports the commonality of fire and the complacency of Hinckley inhabitants.

> …they dwelt secure in their houses fearing nothing, never dreaming that so awful a calamity as befell them was possible, or that they stood in any danger whatever from the source which was destined to wreak such havoc and spread such dire desolation in the lap of prosperity and plenty. Forest fires had been frequent and terrible, it is true, considerable damage to young trees especially had been done every fall by forest fires, but they for the most part had been easily checked and no one apprehended that the season of '94 would differ…All expected forest fires, they always came to a greater or less extent every fall as some indolent vagrant would drop a match in the tinder of a bed of pine needles, or some stumpage which had been brushed, grubbed and burned over had gotten unmanageable and left a blackened and bleak track in the wake of its demon; or again a spark from a passing locomotive would fall where a breath of wind would fan it to life and it would grow till perhaps a mile or two of pines had been devoured by its incipient onslaught.

As one can see, fire was just as common as gross negligence by the settlers of the region. They assumed somebody would screw up somewhere and fire would take large portions of land away. Still, they believed that when fire would come to them, they would easily be able to manage it. Yet, as history would have it, this was not the case.[81]

Hundreds of people lost their lives because they failed to acknowledge the danger of the fires around them. Their perception of the environment as a conquerable thing and the threat of forest fires as minimal combined to create a disposition that killed them in the end. Many people did not leave at the earliest possible moment because they believed the fires would come under their control in a short time. They more or less ignored the petitions of Angus Hay, the editor of

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[80] Elton T. Brown, *A History of the Great Minnesota Forest Fires* (St. Paul: Brown Brothers Publishers, 1894), 5-9.
[81] *Ibid*, 8.

the local newspaper, who, in the days leading up to the fire, published several warnings about small local fires. Fires had been burning in the area for three whole months before the town would be consumed in September. The people of Hinckley may have believed that the Fire-Brigade in town could save them from any disaster. However, the dryness of the previous three months exacerbated the severity of the fires that would come.[82]

Leading up to the fires, inhabitants of Pine County describe what the modern viewer might perceive as a miniature “dust bowl.” The lack of rain was so severe that the ground was dry and cracking. The farmers saw their crops fail over the summer. Oddly, trees were described as "wilted" much like a flower without water. Dust was seen in many a farmer's field, and it blew up into the air. Alongside the dust was smoke, and many victims of the fire would come to believe that the air was bursting into flames. This fire season would not be like any previously. The lack of precipitation would not keep the humidity high enough to thwart the rapid expansion of flames.[83]

The Hinckley fire responses primarily took the form of acts of personal heroism. One of these heroes was Angus Hay, the editor of the local newspaper mentioned above. When the fire started to come into the western edge of town, he was among volunteers helping the fire department fight the oncoming flames. Unfortunately, the fire fighter's hose could not reach the Brennan Lumber Company's mill. They sent a telegram to Rush City to see if they could borrow a hose. For a while, Hay and many of the firefighters believed that they had successfully fought off the fire, however, once the wind picked up, the town was lost.

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[82] *Ibid*, 15-18.; Daniel James Brown, *Under A Flaming Sky: The Great Hinckley Firestorm of 1894* (Guilford: Lyons Press, 2009),19-21.
[83] Elton T. Brown, *A History of the Great Minnesota Forest Fires*, 18.

In a written remembrance of the fires, Hay recalls heroic actions as the town was lost. The fire chief came on a horse claiming flames were burning to the south of town and that the citizens must run and seek shelter in the gravel pit if they wished to live. Hay ran to his print shop and saved a few precious documents as neighboring houses began to burn, and his yard filled with debris. On his way to the gravel pit, he witnessed two women praying near city hall. He interrupted them, claiming water would do a better job of saving them and rushed with them to the gravel pit. The gravel pit was safe because of the lack of combustible material and a three-foot deep pond.

Hay and other men splashed water on women and children to keep them wet. Hay describes the firestorm as being so loud that the seventy survivors in the gravel pit could not hear each other. The survivors in the gravel pit were in the water for two hours, and then they exited the water and dried off. After others who had saved themselves through other means, started to come to the gravel pit. Hay and a few others formed a search party to help those who might have been injured. The party first went to the river where they found plenty of dead and many wounded.

Hay describes the carnage at the river as reminding him of Pompeii. When search parties began to look for the injured and to seek help, they found many corpses frozen in various positions. In some cases, the bodies would be contorted with parts of their bodies sticking upward against gravity, the muscles locked in place. Many of these bodies had some grimace frozen on them. Hay and others eventually made it into town to see that there was nothing left. They slowly took a handcar to Pine City along a melted track to inform others of the destruction of their city. Once back to Hinckley, the party continued to search for people. They witnessed

over one hundred corpses consisting of those who were outrun by the flames. Eventually, they made it to the wreckage of a train by Skunk Lake, where there were more of the fire's heroes.[84]

James Root, a train engineer, was driving a train south from Duluth and once he got to Hinckley, found himself the savior of many fire victims. The smell and the smoke preceded the flames by several miles. Root had to light lamps on the train just south of Carlton in order to seek the track in front of him. In an interview, Root claimed that he had no clue what danger he was in until the last possible moment. The smoke and smells did not concern Root until around a mile away from Hinckley he saw people running towards him. These people asked for him to provide their salvation and informed him that Hinckley was on fire.

Root threw the train in reverse and moved as fast as he could away from Hinckley. In a scene similar to a Hollywood movie, the fire chased the train at a rapid pace. Some people who were clutching to the outside of the train hoping for safety were burnt alive. Others jumped from the train and swiftly fueled the fire with their bodies. The glass that shielded the engineer from the elements broke and pierced the neck of Root, who was still working on sending the train in reverse while his hands blistered on the controls. In moments that felt like hours, the train eventually made it to Skunk Lake, where the passengers quickly fled into the waters and barely escaped the fate of the train. Root, too weak to move, remained with many of the Skunk Lake survivors until help arrived.[85]

Also on the Skunk Lake train was a young African American railroad porter named John W. Blair. He only minimally appears in Elton Brown's official history of the fire but played a vital role on that train as well. Blair took charge of the panic-stricken passengers and led them

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[84] *Ibid*, 198-206.
[85] *Ibid*, 41-51; 139-147. *The Mississippi Valley Lumberman*, September 21st 1894, 1.

from the train and into the Skunk Lake. Blair's experience was not the same as Root's. He did not race the flames, nor did he take glass to the neck. Instead, his contribution was to remain calm in the face of danger and to assist everyone he could off of the train before it burned. He would be hailed as a hero and would be appreciated by all of the railroad passengers for years to come.[86]

Many passengers wrote letters to the Duluth and St. Paul Railroad to laud the actions of Blair on that day. The letters provide little to no detail of the specific actions of Blair, but several letters were written on behalf of every saved person, to exclaim that Blair acted with great "bravery" on the day of the fire as he assisted passengers off the train. On September 13th, 1894, Blair was given a medal to laud his efforts. The organization presenting him with the medal were "the Afro-Americans of St. Paul," and F. L. McGhee delivered a persuasive speech commending the heroism of Blair. McGhee said, "The blood that produced the liberty of the slaves was the black blood of the land, and it is not to be marveled at that on a disastrous occasion like this that a negro is found performing his duty and doing his duty well." McGhee continued to link race with service throughout his speech commending Blair's actions.[87]

Blair was given more than a medal for his actions. Blair would see his actions memorialized in a poem entitled "Blair's Heroism," which would appear under a newspaper heading entitled "One of his race makes it the subject of a poem." It appears that many of the whites who bore witness to his actions or read of them in the newspaper did not expect much

[86] Letters from the passengers possessed illegible signatures and were addressed "to whom it may concern," making it difficult to trace exactly who was supposed to read each one. They can be found in the Minnesota Historical Society Gale Library, Blair, John W. Papers, 1867-1915 P1788.; Daniel James Brown, *Under a Flaming Sky: The Great Hinckley Firestorm of 1894*, (Guilford: Lyons Press, 2009), 88, 96, 99, 148-149, 160.

[87] Henry Marshall, "A Gold Badge for Heroism" *The Henry Republican* MNHSGL, Blair, John W. Papers, 1867-1915 P1788.; *Speech of F. L. McGhee, Esq at the mass meeting of Colored Citizens, at Market Hall, September 13, 1894, in honor of the brave Deeds of John W. Blair during forest fires at Hinckley Minnesota*, MNHSGL, Blair, John W. Papers, 1867-1915 P1788.

heroism from him on sheer account of the color of his skin. A wealthy passenger and his wife also sent a thank you note to his lawyer with a check for $25. This gift was supposed to be "a slight testimonial for your gallant conduct on the evening of September 1st." His actions only appear slightly in the official history, but it is abundantly clear that he ranks among the most important heroes of the fire.[88]

One final act of heroism was the Barry and Best Relief Train. On the day of the fire, engineer Ed Barry pulled his train into a fire surrounded Hinckley with a typical load of supplies. Following a short while after, was Engineer Best and Conductor Powers on a passenger train. Together, the three thought on their feet to create a twin-headed relief train. The train consisted of three boxcars, a caboose, five-passenger cars, and two engines. They had finished their train just in time for the Fire Chief Craig to declare the town as lost. Many people rushed to the train to secure a ride to safety. Many healthy individuals gave up their place for the infirm and the children and then made their way either to the river or the gravel pit.[89]

Again, this train raced against time in a way that is not unfamiliar to Hollywood film fans. The engineers loaded people onto their train for forty-five minutes, until the last possible moment, when people in their line of sight were perishing in the heat and flames. They then sped out of town, across the Grindstone Bridge overlooking the Grindstone River. They enjoyed a brief moment of safety and took on forty more passengers before the danger resumed. The train sped as fast as the engineers could push it with flames all around them. Once they were seven miles from Hinckley, they would feel for the first time that the fire was behind them, although

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[88] Thomas D. O'Brien to John W. Blair, MNHSGL, Blair, John W. Papers, 1867-1915 P1788. "One of his race makes it the subject of a poem." MNHSGL, Blair, John W. Papers, 1867-1915 P1788.
[89] Elton T. Brown, *A History of the Great Minnesota Forest Fires*, 38-50

the smoke still blinded many and the forward lamps were needed for the entire journey to Duluth.[90]

As one can see, the responses to the flames, at the moment, were marked by personal heroism. The only organization present to save the town was a small fire department and a handful of volunteers. These individuals would soon be overwhelmed by the heat and the rapid spread of fire. It would be quick-thinking townsfolk and train engineers who saved so many people. Angus Hay was a fortunate man who saved a small handful of people and helped about seventy people who congregated at the gravel pit. Engineer James Root saved hundreds with his quick thinking and speedily reversing his train to Skunk Lake. Finally, Barry, Best, and Powers, saved hundreds of people through a cobbled-together locomotive that was more a reaction to the circumstances than a premeditated response. Even though Hinckley had a fire brigade, there was no indication of any disaster preparation.[91] However, despite great heroism, there was a greater tragedy.

Scenes of Death

Not all of the stories of the fire in Hinckley have a happy ending. Hundreds of people perished in flames. Those who entered the gravel pit were lucky. Those who did not get into the gravel pit or on a convenient train out of town either ran to the river or they did their best to run out of town. However, many of those people would inhale a great deal of smoke, or suffer from the heat, or drown in an attempt to save themselves. Unfortunately, most of them would perish because they could not escape the flames.

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[90] *Ibid*, 29-39.

[91] Although one might think that the fire brigade is something that would be available to put out fires and thus be some kind of systematic response, this is not exactly the case. The fire brigade would be equipped to handle a small property fire, but would wholly be unequipped, as we see here, to handle a fire at the level of a natural disaster.

When assessing disasters, Christian Pfister describes two different kinds of vulnerability. The first kind of vulnerability is social. “Social vulnerability” is anything impacting the status of a person that could likewise impact how they experience the disaster. Are they able to afford insurance, hospital bills, and so on? The second is “biophysical vulnerability," where the disaster would cause damage to person and property. The biophysical vulnerability of the great fires is straight forward. However, social vulnerability contains two significant complications: race and immigration. Between the Hinckley and Cloquet-Mooselake fires, many Ojibway people suffered death and destruction and received far less help in terms of proper burials and aid. Similarly, the mass death in Mooselake was felt primarily by Scandinavian immigrant families (in some cases the entire family perished).[92]

A mile north of the Grindstone River, one-hundred and twenty-six people died. They had hoped to find water, but the drought had run that particular area dry, relief crews were shocked by the scene of contorted bodies not just of their neighbors, but of the many animals that attempted to follow them to safety. Many of these people died fairly close to instantaneously. Like Angus Hay, it is difficult not to be reminded of the destruction of Pompeii. One little girl died while on her knees, praying for her salvation. Her body was found frozen, hands melted together, stiff forever. Others were frozen mid-gate as they were running away, their corpses knocked over by the force of the wind. In many cases, all clothing except for parts of the shoes

[92] Christian Pfister, “Learning from Nature-Induced Disasters: Theoretical Considerations and Case Studies from Western Europe,” *Natural Disasters, Cultural Responses: Case Studies toward a Global Environmental History* Christof Mauch and Christian Pfister ed. (Lanham: Lexington Books, 2009), 1-24.; Francis M. Carrol and Franklin R. Raiter, *The Fires of Autumn: The Cloquet-Mooselake Disaster of 1918* (St. Paul: Minnesota Historical Society Press, 1990), 23-57; 75-99.; Daniel James Brown, *Under a Flaming Sky: The Great Hinckley Firestorm of 1894* (Guilford: Lyons Press, 2006), 189; 205-206; “Reported Cremated: Redskins Destroyed by the forest fires,” *The Minneapolis Tribune* September 8th 1894, 3.

were burned entirely off of the dead. In many cases, it would be difficult to identify the particular person or even the gender of the dead because most recognizable features had been destroyed.[93]

Elton Brown, the first chronicler of the fire, has a perplexing assessment of the deaths of these people. On the one hand, Brown notes that all of these victims were of a lesser social class than the survivors. None of them owned much, and none of them were the business owners of the town. On the other hand, Brown describes them thus: "Those who had not the mental capacity to appreciate anything more than the fact that they were in great danger and this one thought seemed to force all of the others from their mind even exclusion of a thought of how that danger was to be averted." In other words, the victims of the flames were too unfortunate and too stupid to save themselves. Brown's assessment of these victims is a little barbaric, although it is interesting to note that many of the dead were poor and that many of the survivors happened to be of higher socioeconomic status.[94]

Relief Measures for the Hinckley Fire

Pfister organizes disaster management into the three phases of "emergency, recovery, and reconstruction." Pfister examines learning in each of these three phases. Pfister looks at changes in preparedness for early modern flooding to demonstrate that learning in the emergency phase requires some organization at the local level and usually took the form of alerting the town's response in the case of a flood or fire via a town guard. Pfister looks at rock slides and floods in Switzerland to demonstrate that learning in the recovery phase often takes the form of developing clubs and societies, charities, fundraisers, and developing insurance policies to refinance victims of disasters. In the reconstruction phase, Pfister explains that learning happens

[93] Elton T. Brown, *A History of the Great Minnesota Forest Fires*, 55-59.
[94] *Ibid*, 59.

through the construction of new disaster-resistant infrastructure like dikes and so forth. The majority of the responders to these fires focused on developing the responses during the emergency and the recovery phases. The Hinckley fire demonstrates a steep learning curve for Minnesota in both the emergency phase and the recovery phase of a major fire.[95]

Relief began locally, and then eventually became a state-wide effort to rebuild Hinckley. Relief began small, as able residents scoured the remains of their town in search of any food the fire did not touch. A local pastor found some burned watermelons that were consumed alongside hastily milked cows to sustain the survivors. Once word reached Pine City, many residents provided individual acts of charity, contributing necessities of all types. A train was packed full of goods and waited along the tracks for the railroad to be repaired. Restoring the rail lines took a long time, but once this was complete, relief came in from everywhere.

The relief train from Pine City brought Pine City residents to affect the first stage of relief. These people carried the infirm onto the train and doled out food and clothes to the fire sufferers. They helped assist with looking for the dead as single members of families wandered back into town. Once the train had been full of the infirm, the train returned to Pine City. The skating rink became a field hospital supplied with food cooked at the Knights of Pythias Hall. Many women of Pine City were tasked with nursing duties and keeping the kitchen running around the clock. Rush City, south of Pine City, sent a handful of surgeons to the Pine City field hospital in order to bring aid to the sufferers.

One of the hardest aspects of fire relief involves burying the dead. The days after the fire were hot and dry, and if the corpses rendered nameless by the flames were to be above ground

[95] Pfister, "Learning from Nature-Induced Disasters," 1-24.

for too long, the disease would spread among the living. Bodies, often unrecognizable because of the flames, had to be buried hastily, often where they laid, to help prevent the disease from spreading. In other cases, corpses could be brought into town to be shoveled into a mass grave being dug to dispose of bodies as soon as possible. There were attempts to identify the dead, but there was a great room for error because most flesh was unrecognizable. They may be able to tell based on a fire-resistant item melted to the body, or based on the location of the corpse, but these methods were not be the most accurate model of identification. Many worked around the clock to hastily bury the dead. Had they not worked efficiently, and perhaps unceremoniously, the rotting flesh would have caused significant ailment among the survivors.[96]

In the Twin Cities, relief began at a dizzying pace. The governor was informed and began petitioning for aid on behalf of Hinckley, the National Guard was called up for service, and many local wholesalers were called to gather supplies for the needy. Relief agencies developing in the Twin Cities coordinated via telegram with the Pine City Relief Committee to learn about what things the survivors would need. The National Guard collected and sent tents to establish a tent city in Hinckley for the survivors. The railroad, to do its part, carried all of the supplies to Hinckley and Pine City free of charge and provided an essential logistical backbone for relief efforts.

Governor Nelson and Minnesota newspapers did their part to assist the Hinckley sufferers. Newspaper reporters told ghastly tales of the flames to ramp up support for the fire sufferers. Governor Nelson petitioned citizens across the state to donate what they could, in particular in the form of money, to a fund in the Twin Cities that would then be sent to Pine City

[96] *Ibid*, 86-95.

to be doled out amongst the fire sufferers at Hinckley. Combined, these efforts assisted in raising money to relieve many, now completely broke residents of Hinckley.

A series of relief committees were created both in Pine City and in the Twin Cities, each tasked with different tasks. While some focused on medical care, others focused solely on raising money. Other committees focused on memorializing the dead and others still on transportation. Instead of trying to highlight a plethora of acts by a myriad of organizations, it would be more efficient to look at the aggregate results. They sent the most severe burn victims by train to Minneapolis hospitals while skilled surgeons from the Twin Cities took trains to lend a hand at the field hospital in Pine City. These committees also raised just over $25,000 in cash, $700 worth of supplies, and $10,000 worth of clothing and furniture to relieve the fire sufferers in Hinckley.[97]

The Twin Cities were not the only hub for relief efforts for the Hinckley Fire. The Twin Ports, Duluth, and Superior did their part as well. The Barry and Best train fled from Hinckley to Duluth, and now it was up to Duluth and Superior to care for those brought north on that train. Duluth received telegrams from areas just north of Hinckley that the fire had consumed their towns and then sent relief trains to retrieve all of the survivors and bring them to Duluth for shelter. Many essential sites in Duluth became homeless shelters including, the Wolf Block, the Howard Block, the Armory, the Union Depot, the Columbia Hotel, and the Duluth Hotel. Mayor Raymond T. Lewis issued a proclamation creating a relief committee to assist the homeless fire

[97] *Ibid*, 100-113. "Calls for Aid," *The Minneapolis Tribune*, September 3thd 1894.; "Aid from Austin" *The Minneapolis Tribune*, September 8th 1894, 3.; *The People's Press*, September 7th 1894, 1.; "Local News," *The New Ulm Review*, September 12 1894.

sufferers in the city. City Hall filled with volunteers that would then be divided into various committees.

The various committees transformed the city of Duluth into a vital hub of aid for the Hinckley Fire sufferers. They converted several more buildings into locations for the committees to do their good works and to create places for the homeless fire sufferers to stay. They also managed to raise $20,000 to dole out to the fire sufferers that were now seeking shelter within the city limits. In November of 1894, the committees were still assisting two hundred individuals and chose to supply each family with a Thanksgiving dinner. This kind of relief is more a spiritual relief than an effective relief in the long term, but it remains among the most important nonetheless. It may seem harsh to think of Thanksgiving dinner as ineffective relief, but that particular kind of meal is not a prerequisite for survival. It would not be as essential as a house or help sowing the next season's crop. What it would do is allow the survivors to maintain some semblance of normalcy. They could still participate in a national holiday despite their current condition. By the end of their endeavors, Duluth had taken on fifteen hundred survivors from Hinckley, Sandstone, and surrounding townships and gave them various kinds of assistance.[98]

The relief generated by these committees was doled out through a victim registration waiver. Victims had to state their name, where they were born, and how long they had lived in Minnesota. If married, similar information was required in order to support dependents. If they were farmers, the registrant had to list the circumstances with which they owned their land (they could be leasing it from a logging company or railroad). Once registered, relief emphasized families. It could be roughly twenty-five dollars per member of the family. However, if single, a

[98] *Ibid*, 114-127.

person would receive fifteen dollars. If there was a baby in the family, recipients would receive sixty dollars. If the family had three children, they received one hundred dollars. The money would come in addition to food and clothing. If the recipient were a farmer, they would receive some simple tools and could choose one of two options for housing. Either they could have a small house provided for them, or they could chop down burnt trees and build a house out of that, and the relief committee would supply the tools for that venture.[99]

By November 22nd, 1894, $91,000 had been raised across the state to relieve the victims at Hinckley. The relief commission built three-hundred houses, and 450 families received a houseful of furniture and other utilities. One unfortunate part of the commission is that it could not restore each family to its pre-fire status. Each family would receive aid, but they would not be fully restored to their former economic situation. Fortunately for some residents of Hinckley, the lumber companies boomed in the wake of the fire because they needed to cut all of the dead and down timber created by the fire. The lumber company hired 12,000 men for that purpose. Nearby Sandstone quarry also assisted in employing an additional one hundred individuals.[100]

One can see from the Hinckley Fire three specific aspects of disaster response by Minnesotans. First, there was hardly anything happening in terms of prevention. There was a small fire department, but they helped with fires already existing and not fires that could emerge. In the emergency phase, when the fire was happening, the fire department and its volunteers were next to powerless to stop the fire's advance. The successful ventures in the emergency phase of disaster response came through personal acts of heroism. None of the heroes of the Hinckley fire signed up for the job, but instead happened to be in the right place at the right time

[99] *Ibid*, 127-130.
[100] *Ibid*, 128-138.

and they did the right thing. During the recovery phase, where goods and monies were given to the victims, we see numerous examples of Minnesotan generosity. Critical in the recovery phase for Hinckley was the personal donations of many citizens and organizations to bring many of Hinckley's residents back on their feet. The Hinckley fire demonstrates a sort of intimacy, your neighbor was the one who pulled you out of your burning house, and a stranger provided your turkey for Thanksgiving.

For a first experience with responding to a great fire, the state did fairly well. However, the rapid creation of organizations to deal with a specific disaster (ei: the Hinckley fire), is a far cry from an organization that could respond to great disasters more generally. There was no rehearsal for rebuilding an entire town after a fire had destroyed it. Hinckley would never be the same after the fire. The Hinckley fire showed Minnesota that it needed to put a series of programs in place in order to keep disasters from happening. The first step would be to create a program that could assist with the first two problems, a lack of both prevention and firefighting capabilities.

The Forest Preservation Act 1895

In the wake of the Hinckley fire, political opinion shifted to work towards ensuring another disaster as it would never occur again. One key figure helping shift that opinion was Christopher Columbus Andrews. Andrews was an American Civil War hero, often referred to by his rank of Brigadier General. He also served as a U.S. Ambassador to Sweden where he learned about scientific forestry. He also assisted the government in Brazil. More importantly, Andrews

had involved himself with the Conservation movement in the United States and tried to influence many decisions at the state level in Minnesota.[101]

The state legislature passed the *Forest Preservation Act* on April 18th, 1895. The makers modeled the act after a series of successful bills on the east coast. An 1884 law in New York rendered all town supervisors "fire wardens," and after successful implementation of this system, Maine and New Hampshire passed similar laws in 1891 and 1893, respectively. In Minnesota, the act would create fire wardens out of the existing town supervisors, but the wardens answered to a different authority than their east coast counterparts. The east coast laws created forest commissions while the law in Minnesota gave the highest authority to the state auditor who would simultaneously hold the position of forest commissioner at no increased pay. The state auditor/forest commissioner would then appoint the chief fire warden, who would facilitate the enforcement of the *Forest Preservation Act*.[102]

The law gave the chief fire warden a myriad of responsibilities regarding the enforcement of the act. The law gave the power of appointing fire wardens in organized and unorganized territory and of appointing additional temporary wardens in at-risk areas to the chief fire warden. The chief fire warden was required to create signage detailing the law and its penalties and provide it to every fire warden and railroad company for postage. They had to ensure timely correspondence with fire wardens across the state.

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[101] Stephen J. Pyne, *Year of the Fires: The Story of the Great Fires of 1910* (New York: Penguin Books, 2001), 233-235.; Agnes M. Larson, *The White Pine Industry in Minnesota: A History* (Minneapolis: University of Minnesota Press, 1949), 263-264; 340-342. Jeff Forester, *The Forest for the Trees: How Humans Shaped the North Woods* (St. Paul: Minnesota Historical Society Press, 2004), 114, 124-126.; Alice Andrews, *Christopher C. Andrews: Recollections 1829-1922* (Cleveland: Arthur H. Clark Company, 1928),1-294.

[102] Christopher Columbus Andrews, *The First Annual Report of the Chief Fire Warden of Minnesota: Under the Act of the Legislature Entitled "An Act to Provide for the Preservation of Forests of this State and the Prevention and Suppression of Forest and Prairie Fires," Approved April 18, 1895: For the Year 1895* (St. Paul: Pioneer Press Co, 1896), 4-6.

The law placed specific requirements on the railroad companies. The law required that all the railroad companies utilize spark arresters on their trains. They had to maintain a clear area of fifty feet on both sides of the railroad track. The employees could not leave a fire or hot coals in the woods. Conductors were required to report all fires they saw at the next telegraph line on their track. The law required that all railroad employees have training in fighting fires and preventing fires. The railroad companies had to place warning signs provided by the chief fire warden around all of the at-risk areas. If the railroad company were near a fire, they were required to send all available personnel to fight the flames. Violations of these requirements could result in a fine between five and fifty dollars. In the future, it will become apparent that some of these requirements were followed well, and others were not followed at all.[103]

The law provided various punishments based on who violated the act. Those associated with the railroad (regardless of position) were fined somewhere between five and fifty dollars. Individuals that had set a fire in violation of the law would either be fined one hundred dollars or serve in the county jail for three months. If a fire warden neglected their duties, they could receive a five hundred dollar fine or spend ten years in the state prison or suffer both. The money from fines would go to the "County Fire Fund" in the county where the offense occurred. Before the punishments outlined in the Act, starting fires was considered a misdemeanor that often went unenforced, according to Andrews.[104]

The chief fire warden had the responsibility of investigating the forests of the state and keeping records of the size of the forests and the quality and variety of their trees. The *Forest Preservation Act* did not initially provide these powers. The first draft only included the

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[103] *Ibid*, 5-8.
[104] *Ibid*, 7-13. Andrews, *Christopher C. Andrews: Recollections 1829-1922*, 290.

enforcement powers. However, Andrews asked a Cloquet Congressman named W. P. Allen to assist in the addition of these “scientific forestry duties” as a part of the law. Significantly, they had to keep all of these expenses along with the cost of fighting actual fires under $5,000. It appears that even after the devastating loss of life and property at Hinckley, the legislature did not take the forest fire problem seriously. In his memoirs, Andrews describes the appropriation as an insurance policy for one hundred million dollars in lumber alone. The final task of the chief fire warden would be to provide a report to the state auditor/forest commissioner of all of the above tasks.[105]

The law gave fire wardens their respective tasks for the townships under their stewardship. These men were tasked with managing the local response to a fire. The law gave the fire wardens the authority to muster all able-bodied men to fight the fire. The law required the wardens to post signs detailing the *Forest Preservation Act* and its penalties in their communities. The law gave fire wardens the power to arrest people who broke this law "without a warrant." They were required to coordinate nearby fire wardens in case of a massive fire, and they had to make reports to the chief fire warden as the need arose.[106]

For the amount of work that the fire wardens had to do, the law gave them little in terms of compensation. Pay for the wardens and the mustered men would be paid two-thirds by the county and one-third by the state. The fire warden earned two dollars a day for a total of no more than fifteen days a year. The men mustered by the fire wardens could only earn a dollar and fifty cents per day for a total of five days per year. The county could not pay over five hundred dollars a year for the services of fire wardens and mustered men, and the reports of fire warden services

[105] *Ibid*, 4-6. Andrews, *Christopher C. Andrews: Recollections 1829-1922*, 287.
[106] *Ibid*, 4-6.

had to be approved by the county commissioner and town supervisory board before the county would pay for the fire warden services. With limited compensation, it is a wonder that the fire warden system had the success that it did.[107]

Setting the System in Motion

On the first of May 1895, Christopher Columbus Andrews, the first chief fire warden, send out his first circular. This circular provided each town and railroad company with copies of the *Forest Preservation Act* for their records and set in motion the creation of the fire warden system. According to Andrews estimation, since each town had roughly three people that would be made fire wardens automatically, and there were around fifteen hundred organized towns in the state, that there would be almost five thousand fire wardens across the state. However, Andrews notes that not all of these fire wardens were needed because there would be no chance of a forest fire in a place like St. Paul. To ascertain who needed to stay and who would be unnecessary, Andrews sent letters of inquiry to county auditors. Some of these auditors gave detailed comments of which towns in their county needed wardens and which did not. Others named all the towns in their county. Andrews did not inquire about what he deemed to be thirty-five "older settled counties."[108]

Andrews then focused on generating the warning signs that the law required to be posted. He oversaw the creation of eighteen-thousand 17x12.5-inch cotton signs that would be supplied to one thousand railway stations and county auditors and commissioners. Andrews required the

[107] *Ibid*, 4-7.
[108] *Ibid*, 8-15.

county commissioner to publish the warning signs and penalty information in the county newspaper three times.[109]

On May 28th, 1895, Andrews sent out his second circular to town chairmen notifying them of their new status as fire wardens. Andrews asked the chairmen for the names and addresses of the other supervisors in their township that the law gave fire warden status. Andrews also asked that they provide him with information on their town including the amount of their township covered with forest and a description of the type of forest (pine, oak, etc.). They were also asked for the number of able-bodied males that could be mustered in case of a fire and asked for the townships' overall risk to fire. Ninety-eight percent of town chairmen responded to Andrew's call.[110]

Andrews found greater difficulty in appointing fire wardens for the unorganized territories. Andrews again needed the help of county auditors to figure out who could potentially be eligible to fit the position in the marginally populated unorganized territory. After following the advice of the county auditor, Andrews managed to recruit an additional forty wardens. Unfortunately, Andrews notes that the sparse population and lack of pay to offer potential recruits stymied many of his efforts. For the year of 1895, Andrews created a total of 1282 fire wardens.[111]

Andrews' third and fourth circulars greeted the fire wardens in August. The third circular, on August 1st, explained to the fire wardens the annual budget of the act and how they were to receive payment. The fourth, more critical, act served as a sort of training for the wardens. It was

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[109] *Ibid*, 16-17.
[110] *Ibid*, 18-20. Andrews kept meticulous records of how many of the fire wardens responded. In this case, 408 out of 415 chairmen responded to Andrews' circular.
[111] *Ibid*, 20-22; 54.

received on August 15th and gave recommendations on how to fight and how to prevent forest fires. In fighting fires, Andrews instructed the wardens to maintain a list of the able-bodied males in their communities and to set up a communication network with them. The network would be that the fire warden would muster a man and they would send word to their able-bodied neighbor who would, in turn, send word to their able-bodied neighbor as they went to fight the fire. Andrews suggested the wardens have the mustered men bring their gear. Andrews recommended for smaller fires the men bring wet brooms and sacks to beat out the blaze. Andrews recommended that the fire wardens keep barrels of water handy and keep records of all of the water sources so they could draw water from the nearest source to a potential blaze. If the fire went out of their control, the fire warden was to seek help from nearby fire wardens and to notify the chief fire warden of the situation. Finally, the wardens were to keep men posted near the coals to make sure there was no chance the fire could reignite.[112]

Andrews provided less extensive commentary on the prevention of fires. Andrews notes that the primary threats of new forest fires were: new settlers, lumbermen, miners, trains, and hunters. Andrews claimed the best way to hinder the flames would be to educate the townspeople about the law. The fire wardens were to enforce the law strictly. They were to ensure that no burning occurred in dry, windy weather. Andrews suggested the fire wardens require that whenever someone would like to burn something, they must notify their neighbors. Also, those burning brush should be asked to dig holes around their brush piles to make sure the fire could not spread. Andrews recommended that the wardens also make sure all trains that travelled in

[112] *Ibid*, 60.

their jurisdiction have spark arresters. Andrews asked the wardens to keep a copy of the circular for themselves and preserve it for future fire wardens.[113]

The final logistical concern that worried Andrews were Native American reservations, particularly those in the northern half of the state. Andrews claimed that he believed most Native Americans were better at managing their campfires than the white hunters in the north, but he had concerns over fires created by the few out of "revenge." The *Forest Preservation Act* had no jurisdiction on reservations in the state. Andrews notes that many whites in the state had concerns about Native Americans:

> Also, whether founded or not, it is the belief of many white citizens in the neighborhood of Indian Reservations, that the practice of allowing the Indians to sell such of their standing timber that has been injured by fire has proved a temptation for them to set fires.

In other words, people, perhaps including Andrews, were worried that the Native Americans would set fires that would go out of control so that they may profit from it either financially or out of "revenge." Andrews's solution was to write the Bureau of Indian Affairs and request that they send copies of the act and warning signage to the reservations in the White Earth Agency. The Bureau of Indian Affairs approved the signage and sent it out in September of 1895.[114]

The Hinckley fire became the catalyst to the reluctant creation of the fire warden system. The system, although based on systems in the east, still tried to find the least expensive way of preventing fires by giving additional duties to people already in places of authority. The State Auditor became the Forest Commissioner. They appointed someone to do all of the logistical

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[113] *Ibid*, 60-61.
[114] *Ibid*, 101-103.

enforcement of the law. The law itself gave minimal monies for fighting fires and limited the hours and wages of those who risked their lives. When it came time to actually fight a fire, they served little more purpose than the fire-brigade. In order for either to be effective, they had to recruit heroic souls from the town to fight the fire.

Fire Statistics for the Year 1895

The fires statistics generated by Andrews are thoroughly problematic. The general statistics for burned acres and damages do not always match the county burned acres or the burned acres covering plains or covering forest areas. Human error can account for much of it. However, one cannot pin all of the error on Andrews. He coordinated hundreds of people across the state to fight fires. He had to rely on the data of hundreds of others before he tabulated his numbers. The statistics that follow come from the Andrews report.[115]

Andrews sent out a form to gather information on fires for the year. Andrews notes that the 1895 season did not test the fire warden system because the year was wetter than usual. Dry weather did not occur until September and October of that year. In the north, there were fourteen fires in nine counties. The counties affected were: Becker, Benton, Crow Wing, Douglas, Isanti, Kandiyohi, Ottertail, Stearns, and Todd. The fires burned 8,265 acres and caused $3,125 in damages. Andrews provides in his report a breakdown of the causes of these fires. Five were caused by clearing land, four by train sparks, four by hunter's campfires, five for other circumstances and nine had an unknown cause.[116]

"The law would be all right if people would obey it."

[115] *Ibid*, 65-70; passim.
[116] *Ibid*, 65-67.

The heading reflects perfectly the sentiment of many fire wardens and their communities regarding the *Forest Preservation Act*. Among the many forms that Andrews circulated among the fire wardens, he asked and kept track of responses for questions about how the warning signs were treated, how people viewed the law, and how they might like to see it changed. Although some of the statistics provided by Andrews seem to be overwhelmingly positive in each field, some of the qualitative remarks in the counties involved in the historic fires appear to reflect great resentment for the law.[117]

Sentiment in Carlton county for the law was particularly weak. Peter Jackson, commenting on the sentiment in the small township of Knife Falls writes, "An active public sentiment can only be awakened by placing responsibility [for fires] on the logger as well as the farmer. Nine fires out of ten started on old pine cuttings." John Atkinson, of Mahtowa, felt a similar sentiment and claimed that farmers could not clear land under the law and were therefore against it. Writing in a similar vein, S. J. Rankin writes, "The main object now seems to be to get rid of the timber there is left and get the land under cultivation." The majority of the Carlton County sentiment relates to the farmers being hamstrung to clear their land while lumbermen burnt tons of trees and started most of the fires.[118]

Settlers in Pine County, where the Hinckley fire raged, had more mixed reviews on the law. Interestingly, Dell Grove and Pine Lake, both having been a part of Hinckley during the great fire, were the most negative about the law. Severt Haglin of Dell Grove commented "very poor" on that question. H. G. Tyler, of Pine Lake, gave a better response: "As far as I can tell, most people think it more injury than benefit to them, in that it would, if strictly enforced,

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[117] *Ibid*,63-97.
[118] *Ibid*, 83, 87.

prevent them from clearing land; and they are more interested in getting rid of timber than preserving it." It appears that even after over four hundred members of their community perished, that they failed to realize the dangers of their present relationship with fire.[119]

Adolf Bjork, of Rock Creek, gives a more positive spin on Pine County negativity. Bjork writes, “People are just starting to realize the destruction of our forest will eventually prove detrimental to our country. The craze to clear land has caused many of our farmers to dispose of their timber, and now they are regretting it.” Bjork points to the beginning of a shift in the perception of the environment. He hints at the regret of some farmers at their timber losses. However, the overwhelming majority of people wished to continue their previous practices of clearing land through burning.[120]

In St. Louis County, the disposition towards the law was much more favorable. In Hibbing, James Geary wrote:

> Our citizens are very favorable to the act and feel that it should be rigidly enforced. If the ensuing summer is as dry as 1894, we will be in great danger. There are large choppings adjacent to our village and the surrounding timber. We are surrounded by the best timber belt in the state, mostly white pine.

The favorable attitude in Hibbing seems to be a result of a present threat, whereas the disfavor in Pine Lake and Dell Grove seems to be a result in the perception that the threat had passed.[121]

When asked about how the law ought to be changed, many fire warden responses indicate severe problems with the law. P. Sarrette of Knife Falls, Carlton County, argued that the law should require timber cutters to pile their slashings. John Atkinson argued that there needed to be a time when the weather was fair to allow for some burning. Charles Loos, of Split Rock, Carlton

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[119] *Ibid*, 85.
[120] *Ibid*, 85.
[121] *Ibid*, 86.

County suggested that Lumbermen ought to be burning their brush. One telling comment comes from William McComber of Canosia St. Louis County, who wrote that there needed to be a "reward to a person catching anyone destroying the placards." It appears that settlers were breaking the warning signage. Finally, Erik Erikson, of New Independence, St. Louis County suggested that lumbermen be forced to clean their slash and plant new trees. The replies suggest that the farmers were mad at the law that restricted them from burning but allowed the loggers to cause fires. In retaliation, they sometimes destroyed signs. Moreover, there appears to be a push to hold loggers accountable for their actions.[122]

The desire for lumbermen to be held accountable carries over into Andrews' next question on what suggestions fire wardens had for preventing fire in the following year. William Shiels of Twin Lakes, Carlton County suggested that lumbermen burn all of their slashings by the 15th of May. R. A. Smith of Sandstone, Pine County gave a much more thorough suggestion:

> As nearly all great forest fires originate in and are made more destructive by, old choppings, the lumbermen should be required to pile and burn all tops and brush left by them before they leave the grounds in the spring, and the state should require that to be done on its lands, as a condition of granting permits to cut timber, and pay an inspector to see that this is properly done. Let the state set the example as to her land and require all others do the same, or punish them by fines and imprisonment.[123]

Further suggestions were fueled by racism. Henry Olson of Pine City, Pine County suggested that if all Ojibwe were forced to stay on their reservations that there would be fewer fires. This was part of a prevailing belief that Native Americans ignorantly set fire to the land to

[122] *Ibid*, 87-91.
[123] *Ibid*, 93, 96.

gain access to timber. Ironically, that was what lumber barons were doing on reservations to steal timber from sovereign nations.[124]

There appears to be criticism for aspects of the fire warden system it is the first year, particularly in areas that just the year prior was impacted severely by Hinckley fire. Part of the problem was cultural. The Hinckley fire was over, and there would be no more reason to prevent against that kind of devastation. To many, what mattered was the ability to clear land for farms. While some fire wardens offered constructive criticism, others relayed the opinion that the system ought to be abolished entirely.

Logistical Issues with the First Fire Warden System

In his *First Annual Report*, Andrews provides tables containing the Fire Warden's name, the town under their care, and the town in which they resided. In most cases, in the counties that suffered the great fires, the fire warden resided in the town that they were charged with protecting. However, some unusual cases proved problematic for potential fire prevention. In particular, where much of the destruction of the 1918 fires happened, there was the most significant distance between the fire warden and the township under their charge. For example, Split Rock and Twin Lakes townships had fire wardens roughly ten miles away from them. Perhaps more striking are the fire wardens responsible for Fond Du Lac, where two-thirds of the fire wardens were just over twenty miles away on modern roads. Most alarming is the township of Kettle River, which suffered significant casualties during the fires of 1918, since it had fire wardens between fifteen and twenty-four miles away from them. Before the invention of the automobile and the development of modern roads, it comes as a shock to believe that the fire

[124] *Ibid*, 96. Anton Treuer, *Warrior Nation: A History of the Red Lake Ojibwe* (St. Paul: Minnesota Historical Society Press, 2015), 96-115.

wardens had any chance of fighting a fire that was to break out in either Fond Du Lac or Kettle River.[125]

The Fire Warden System: 1896-1900

In 1896, the fire warden system got its first real test in Carlton County. In neighboring St. Louis County, several fire wardens reported a lack of rain throughout the summer, presenting a significant fire danger for both Carlton and St. Louis counties. The first significant fire came out of the townsite of Mahtowa. H. M. Waldref on September 22nd reported that workers at the local stock farm were always starting fires for close to two months at the behest of the owner. The fires created by the stock farm employees grew out of control, and it took the warden and thirty-eight others until October 3rd to get things under control.[126]

On September 29th, the fire reached Atkinson, a small town near Mahtowa. John A. Swanson, as instructed in the circulars, sent an emergency telegram to Andrews asking for assistance. The following day, fires had broken out in the towns of Thompson and Carlton. The towns were surrounded by fire. D. Moses, of Cloquet, sent thirty-eight men to assist in fighting the fires in both Atkinson and Carlton. The big problem with the 1896 fire season was that several moderately large fires erupted in several towns close to the same day. Many towns near the threatened towns also sent whom they could to fight the fires. Luckily, by the first of October, most of the fires came under control.[127]

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[125] Andrews, *First Annual Report of the Chief Fire Warden*, 26, 43, 45.
[126] Christopher Columbus Andrews, *Second Annual Report of the Chief Fire Warden of Minnesota: Under the Act of the Legislature Entitled "An Act to Provide for the Preservation of the Forests of this State and the Prevention and Suppression of Forest and Prairie Fires For the Year 1896* (St. Paul: The Pioneer Press Company, 1897), 6. 9-10.
[127] *Ibid*, 6-10.

In 1896, it appears that the fire warden system managed to prevent another Hinckley. Unfortunately, that meant that they had proved themselves unnecessary to all of the wrong people. In 1897 the Minnesota legislature fought hard to repeal the *Forest Preservation Act* and failed. However, they did manage to reduce the firefighting appropriations to an even more ridiculous sum of $5,000 to pay for all of the necessary fees, including Andrew's pay. It appears that one of the fire warden system's most significant problems was that despite its lack of resources, it managed to do an excellent job of preventing forest fires. Because the culture of manifest destiny wanted to de-regulate progress defined as land clearing, and laws against burning land regulated progress, the only thing keeping the fire warden system alive was the perceived threat of fires. Without a significant fire, it appeared to the legislative body that there would less need if no need for fire wardens.[128]

In other words, the fire warden system's goal would be to ensure that no fires like the Hinckley fire would ever happen again. To ensure that goal was met, the fire warden system operated on a strict set of laws and regulations enforced across the state. The enforcement of those regulations cost the state a fair amount of money. The success of preventative programing is realized when nothing happens and the state did not want to pay annually so that nothing would happen. Many believed that progress was defined by the amount of farmland that was worked across the landscape. The preeminent tool for clearing the land to expand farms was fire. However, burning fields was regulated by the fire warden system. Thus, the fire warden system had two essential enemies, the state legislature, looking to shrink the budget, and farmers who wanted to play their role in expanding farmland in the name of progress.

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[128] Andrews, *Christopher C. Andrews: Recollections 1829-1922*, 287.

In terms of significant fires, the 1897 fire season was anticlimactic. The fire wardens up to this point had managed to reduce the number of fires caused by railroads significantly, but sparks from trains still managed to ignite many blazes. Andrews sent a circular to the fire wardens suggesting a broader crackdown on the railroads, ensuring greater punishment for second-time offenders. Similarly, Andrews sent a letter to railroad companies assuring them that the fire wardens were aware that spark arresters are not foolproof. Andrews suggested to the railroad companies that they provide more careful maintenance of their trains during the dry seasons to further reduce the risk of sparks.[129]

The fire wardens had other adversaries beyond the railroad. In Andrews' letter to his wardens, he attempted to strictly clean house. He wanted the enforcement of the *Forest Preservation Act* to be as strict as possible. Andrews claimed that the fires being set by the railroad and others in the dry season could be prevented with stricter enforcement of the law and reminded them that they could face prosecution if they were to flounder in their duties. Additionally, the fire wardens had to contend with the county commissioners over their wages. It was the duty of the commissioner to audit the rendered services of the fire wardens and then to pay from the county treasury accordingly. Unfortunately, the wardens, in some cases, were not being paid their fair wages and were becoming disgruntled. Further still, was the added burden of people setting fires to fight them so that they could receive a reward. In Andrews' letter, he argued that strict enforcement of the law will solve all of the problems.[130]

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[129] Christopher Columbus Andrews, *Third Annual Report of the Chief Fire Warden of Minnesota: Under the Act of the Legislature Entitled "An Act to Provide for the Preservation of the Forests of this State and the Prevention and Suppression of Forest and Prairie Fires For the Year 1897* (St. Paul: The Pioneer Press Company, 1898), 10-14.
[130] *Ibid*, 10-14.

The year 1898 would be another good year of fighting fire for the fire warden system. The program had survived the attacks of the previous year by the state legislature. A series of dry weeks were present during the fire season, but the state managed to avoid any major disaster. Wisconsin however, would not have the same luck. Andrews would hold up the fire warden system as the chief reason that Wisconsin had fire problems and Minnesota did not. On September 29th 1898, fire caused $500,000 worth of damage in Barron and Polk counties.[131] However, the fire warden system would encounter yet another problem with the Minnesota legislature. In the legislative session of 1898, the position of the chief fire warden as the organizer of the system came under fire. The State Congress proposed that the county commissioner could do the job of the chief fire warden on a smaller scale, and that would become more efficient. The reality of that situation would be an inequality of protection in some counties because it would be inevitable that one county or another would try to cut costs; however, they could. Thankfully, this would not be the case because those ideas do not appear to have gained too much traction in the legislature and the post for the chief fire warden (relatively speaking) still exists today.

Another prevalent argument that affected the fire warden system was the belief that nothing could have stopped the Hinckley fire. The perception of many Minnesotans was that the Hinckley fire was so uniquely terrible that there would have been no possible way for any collection of people, with any tool of the day, to put it out. This belief led to the perception that something like a system of fire wardens throughout the state would be effectively meaningless. They would not have been able to put out the fire at Hinckley, and if something like that fire ever

[131] Joseph Schafer, "Historical Essay: Forest Fires in Wisconsin," Wisconsin Historical Society. https://www.wisconsinhistory.org/Records/Article/CS1699

happened again, they would not be able to put that out either. Therefore, their very existence was pointless. It did not take very long for Minnesotans to become distasteful of a system that had just saved them from the same fate as Wisconsin.

Andrews argued vigorously against the opinions of the legislature and the people. In regards to preserving the position of the chief fire warden, Andrews argued that the fire warden system required the military-style organization to maintain efficiency. As long as the state would be assisting in the payment of the fire warden system, they would need to employ a central office of the system for which everyone would be responsible. To shift power to people in various counties would be tantamount to anarchy because each would have their ideas that would not necessarily be informed by knowledge of forestry. Therefore, the chief fire warden position would need to be saved from being more efficient and less expensive. Secondly, because the fire warden system was more focused on prevention than on the actual fighting of fires, the ability of humans to fight a major fire like Hinckley was irrelevant because the point was to stop the fire before it began. Through these arguments, Andrews managed to preserve the fire warden system at least a little while longer.[132]

The year of 1899 was a very positive one in terms of the weather for preventing fires. It was a nominally wet year except for a short dry period. Andrews noted a developing problem with the fire warden system in regards to the prosecution of people disobeying the law. Andrews discovered that the fire warden of a town might have severe reservations about prosecuting a fellow member of their small town whom they were likely to see regularly as long as they were

[132] Christopher Columbus Andrews, *Fourth Annual Report of the Chief Fire Warden of Minnesota: Under the Act of the Legislature Entitled "An Act to Provide for the Preservation of the Forests of this State and the Prevention and Suppression of Forest and Prairie Fires For the Year 1898* (St. Paul: The Pioneer Press Company, 1899), 3-4.

members of that town. In one case that led to over two-thousand dollars' worth of damage, it had to be brought to trial by Andrews because the local fire warden had refused to do it. The fire warden system was not designed to handle small-town politicking, and this problem would continue for years.[133]

Danger returned in 1900 to the tune of 139 forest fires and 50 prairie fires. Andrews claimed that the year was abnormally dry and even compared it to the weather surrounding the 1894 Hinckley fire. Andrews highlights in his report the actions of fire wardens in Moose Lake Minnesota, (later devasted in the horrible fires of 1918). On June 22nd, 1900, a fire broke out just two miles from town as a hunter attempted to clear a grazing area for deer. The hunter set three fires and with windy weather and dry air it soon became a significant threat to the town. The local fire wardens were notified and managed to mobilize several men to combat the fire. The fire was threatening enough that Andrews himself came to see the damage. He lauded the local wardens and firefighters for their ability to rapidly dig a trench that saved both Moose Lake and the town of Barnum to the north from certain doom. It took over a week to control the fire and eliminate the threat.

In his report, Andrews linked the growth of the state and its industry with the increase of forest fires. Andrews writes,

> Since the fire warden system went into effect in 1895 fifty townships of Indian lands have been newly opened to settlement, hundreds of new homestead farms have been settled upon, three hundred miles of logging and other railways have been built and operated in the forest regions; there has also been a continuous search for iron ore, also for pinelands which can be purchased under the Stone and Timber Act, to say nothing of the presence of many hunters, so that the dangers of forest fires has increased rather than diminished.

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[133] Christopher Columbus Andrews, *Fifth Annual Report of the Chief Fire Warden of Minnesota: Under the Act of the Legislature Entitled "An Act to Provide for the Preservation of the Forests of this State and the Prevention and Suppression of Forest and Prairie Fires For the Year 1899* (St. Paul: The Pioneer Press Company, 1900), 3-5.

For Andrews, the link between industrialization and the risk of fire has become abundantly clear. More so, it is the negligence that comes along with an increased settler population, hunters, and industrialists that generate such a substantial risk for the inhabitants of the forest regions of the state.[134]

The social vulnerability to fire is natural to see when examining the Hinckley fire. The citizens of the city believed that the fire would not reach them until the exact moment that it did. Once it did, tragedy struck, and the only thing to stand between the fire and mass death was a small collection of heroes. People were not trained to do the things that they did; they rose to the occasion and led many people to safety. Despite many acts of heroism, a third of the population in that area perished. That level of carnage was enough to convince the legislature to do something about it.

What came out of the tragedy at Hinckley was the fire warden system. This system focused on prevention through legal means rather than the development of technologies to fight a fire. The logistical prowess of the fire warden system allowed for several safe years for the state while nearby states continued to face perilous situations. Unfortunately, the success of that system led to negative opinions of it both across the state and in the legislature. People did not want to worry about the constant danger of fire. Instead, they wanted to continue progress as usual and clear land and cut timber. In the years leading up to the turn of the century, the system faced more political and cultural threats than environmental ones. Of the two years containing

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[134] Christopher Columbus Andrews, *Sixth Annual Account of the Chief Fire Warden of Minnesota: Under the Act of the Legislature Entitled "An Act to Provide for the Preservation of the Forests of this State and the Prevention and Suppression of Forest and Prairie Fires For the Year 1900* (St. Paul: The Pioneer Press Company, 1901), 3-5.

significant fires, both were in areas that were devastated by fire in 1918. Each served as a dress rehearsal for a later tragedy. Neither the fight against fire nor the fight against cultural disapproval was over.

Chapter III

The Uphill Battle: Sustaining the Fire Warden System in the Early-Twentieth Century

Introduction

This chapter will focus on the battles fought by conservationists and fire wardens against both fire and political adversaries. This chapter will highlight changes made to the fire warden system after the Chisolm and Beltrami County fires. This chapter will additionally highlight that the only reason that the broad changes at the end of the chapter occur is because the Chisolm and Beltrami County fires occurred close together and the latter of the two had deaths associated with it. The chapter will also note similar cultural complacency towards fire possessed by the survivors of the Beltrami County fire that was also possessed by the inhabitants of Hinckley. This chapter supplies a central conclusion of this thesis that change in learning can only occur through frequency and death.

Turn of the Century Challenges to the Fire Warden System

As mentioned in the previous chapter, one of the biggest long-term risks of the fire warden system was its ability to achieve a fair bit of success while working with few resources. In 1905, the title of chief fire warden changed to that of forest commissioner. The state auditor no longer had that title nor the additional duties of an additional annual report based on what the chief fire warden had reported to him. The pay for the fire wardens changed in 1906 from a set dollar amount over a limited amount of days to twenty-five cents an hour over an unlimited amount of days. The fire warden system, perhaps now more appropriate to refer to as the forest commission, appears to have been more efficient. Without any significant tests, it is difficult to declare that the new changes were more or less effective than the previous model. The system

would be able to either put out small fires, or experience few dry periods before years' end. The reason the system was made more efficient is that it eliminated the role of the state auditor (which was essentially to write a review of the program to the governor) and did not limit how many days one person could fight a fire. In theory, the latter would mean that the program was more effective because the fire warden wouldn't have to discontinue service after a set amount of days. Unfortunately, the fight against forest fires met with considerable opposition.

Also in 1905, Andrews attempted to have a law passed that would have restricted general slashing. The lumber companies and their lobbies pushed back against the law, ensuring that it did not pass in the language that Andrews had first presented it. Instead, the lumber interests influenced the Minnesota legislature to retool the law to state that lumber companies had to burn slash when it was least dangerous as long as it was before the first of May.

In 1909, Andrews helped pass a law that placed more responsibility on the railroad. In addition to the use of spark arresters, railroad companies would have to provide patrols that would follow the trains during the "dry season" to ensure that no fires would crop up. The railroad companies, like the lumber companies, contested the law and had the law thrown out because of its ambiguous terminology. The railroad companies argued that the definition of a "dry season" would be subjective and they could be unduly prosecuted if they were not to have patrols at a specific time. Thus, another law attempting to regulate the two fundamental causes of devastation would go unpassed.[135]

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[135] *Proceedings of the Lake State Forest Fire Conference: Held at St. Paul, Minn. Dec 6-7* (Chicago: The American Lumberman, 1911), 16-23.; Christopher C. Andrews, *Sixteenth Annual Report of the Forestry Commissioner of Minnesota for the Year 1910* (St. Paul: The Pioneer Press Company, 1911), 4-20.

Although Andrews is acting at the high point of progressive era politics, he struggled to fight against these larger industries. Minnesota had progressives in the judiciary and in other realms of public life, but he still struggled to regulate his adversaries in the lumber and railroad industries. The only way that Andrews would gain any real traction, even with the power of the progressive movement, would be through the frequency of economically devastating and deadly fires towards the end of the decade.[136]

Andrews had the additional problem of having to combat a generally negative public opinion. Andrews had been increasingly pushing for government control of the forest lands of Minnesota. He helped pass the Morris Bill in 1902 as an amendment to the Nelson Act. This bill put logging, particularly on state forests/reservation lands in the hands of the government. The level of oversight would permanently cripple lumber companies' abilities to cash in on fraudulent claims that inevitably increased the risk of fire in so many forested regions. Andrews and his program became hated for their goals. Duluth was the home of many people who still promoted the idea that the plow defined progress and the plow followed the ax across the United States. They saw Andrews and his program as a speed bump to progress and opposed him vigorously.[137]

Andrews and his program had to fight wars on multiple fronts. Any small bit of success from the programs in place led to a perception that they would not be needed. The state would look to defund him as they had in the past. The people in the state and the companies that provided their livelihood would also push back against him, either by publishing newspaper articles criticizing him or by organizing lobbies against his laws. Beyond these social problems,

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[136] Carol Chomsky, "Progressive Judges in a Progressive Age: Regulatory Legislation in the Minnesota Supreme Court, 1880-1925" *Law and History Review* 11 (1993): 383-440.
[137] Agnes Larson, *The White Pine Industry in Minnesota: A History* (Minneapolis: University of Minnesota Press, 1949), 316-318, 341-348, 405.

Andrews would be forced to handle two more significant blazes in his tenure as Forest Commissioner. The first would occur in Chisholm and the second in the area around Baudette and Spooner. Amongst these tragedies, Andrews and others would be able to push a significant reform through the state legislature.

The Unfortunate Miracle of Chisholm

Of the four historically significant fires in Minnesota history, the Chisholm fire is covered the least. The reason for this, perhaps, is that in comparison to the other three fires, very little happened. It was only the largest fire in state history. Only the entire town was destroyed. No lives were lost. Historians have much more to discuss when it comes to the other fires because of all the death and destruction that came out of them. However, it is essential to discuss the Chisholm fire in any study of the historically significant fires because of the political problems that came out of it. Although it is not mentioned often enough by historians, it was very much in the minds of future victims of the Baudette and Spooner fire, as well as Minnesota conservationists and the state legislature.

On September 5, 1908, the town of Chisholm was utterly destroyed by fire in the largest conflagration in state history. Thankfully, no lives had been lost in a fire started by negligent fishermen who had not attended to their campfire correctly. Historians have uncovered little in terms of the evacuation of the citizens of the town. However, the restoration of the buildings and the community as a whole came from the great generosity of individual donations from all over the state. The generosity of Minnesotan’s in relieving the Chisholm fire would later be used in calls to reform forest fire prevention measures before conferences and legislatures alike. In particular, the call for increased appropriations for fire prevention would pay homage to the deeds of generous Minnesotans from previous fires.

Although no people died, Andrews was able to use the Chisholm fire for a little bit of political momentum. In the aftermath of the fire, Andrews managed to push for a law creating a ranger service that would patrol the forests and put out fires. He was only awarded a small appropriation to keep the rangers active. By the end of August 1910, the driest year on record in Minnesota, the ranger program could no longer be active. On October 7th, the second most massive fire in state history would take place in Beltrami County.[138]

Beltrami County Ablaze

The Baudette fire of 1910 was a devastating disaster and significant test of the response systems that had been developing in Minnesota over the past sixteen years. Referring to the fire as the Baudette fire or the Baudette and Spooner fire might be a misstep. Instead, it would be proper to call it the Beltrami County fire because it destroyed at least three towns in said county. This particular blaze was part of a regional series of blazes that Stephen Pyne refers to as the "Big Blow-Up" affecting a significant portion of the western half of the United States.[139]

Perhaps the best narrative of the fire comes from Ester Larson, a school teacher at Graceton who lived in nearby Spooner. The Beltrami County fire leveled both towns, and in 1912 she published a narrative of her experience during the fire along with tidbits that she collected from others. Larson's work details the relationship between the settlers and the environment as well as the development of disaster response in harder to reach areas of

[138] *Ibid*, 341-348.; Pete Boulay, "Historical Drought Overview and Current Conditions" (Rochester: State Climatology Office Ecological and Water Resources, 2016) 2. *Proceedings of the Lake State Forest Fire Conference*, 18-21. Andrews, *Sixteenth Annual Report of the Forestry Commissioner*, 6. Jeff Forester, *The Forest For the Trees: How Humans Shaped the North Woods* (St. Paul: Minnesota Historical Society Press, 204), 126.
[139] Stephen J. Pyne, *Year of the Fires: The Story of the Great Fires of 1910*, (New York: 2001), 228-235.

Minnesota. The narrative begins with her teaching at school as the fires began and ends with a memorial service for the fire victims that died a few months later on Memorial Day.[140]

Larson explains to her reader that the area she taught in Graceton, and the surrounding communities of Baudette and Spooner, were inhabited primarily by homesteaders. These individuals had built up the town, cleared some of the surrounding trees, and did their best to develop the land according to their pursuit of manifest destiny. Larson admits that these communities had recurrent experiences with fire. Larson did not worry instantly at the smell of smoke because she had commonly seen smoke from fires as far as thirty miles away. She also assumed that the fire she was smelling while she was teaching school children was a reignition of a fire in a town two miles away that had erupted a week earlier. Larson's narrative implies that the settlers' experience with nature consisted of improving the land and fighting fires.[141]

Larson had recently begun her job as a school teacher in Graceton and recollects her own complacency in being aware of fire and not evacuating until the last minute. Larson writes, "The busy days flew by so quickly that not once did the shadow of possible danger linger in our thoughts." She notes that once she smelled smoke she did not take immediate notice, "…we could distinguish it in the atmosphere, where it became more and more discernable. I had often seen smoke so dense, from forest fires raging thirty miles away, that it was impossible to see objects at even two blocks distance; therefore, at first, I did not pay much attention to this." After some time of smelling smoke she decided to let the children go a little early. She writes, "I did not think any serious event would occur, but knew the children would be safer with their own

[140] Ester Larson, *Tales from the Minnesota Forest Fires: A personal Experience of a Rural School Teacher*, (St. Paul: 1912), 5-25; 90-94.
[141] *Ibid*, 5-10.

folks if anything should happen." Here we see what might be a slight awareness towards the danger to come, but Larson did not let her students go immediately, which lead to her in the students having to flee the school later. One reason that Larson believed everything was fine was because, "Only the week before, the people of Cedar Spur, a village two miles distant, had fought surrounding fires; so we wondered if the wind had caused them to burn anew." Larson does not appear to have been worried that a fire could have reignited just two miles away. She demonstrates in her history of the fire a great deal of cultural ambivalence towards the presence of fire.[142]

On October 4th 1910, the fire reached Graceton rapidly, and Larson and her students raced out of the school. She instructed the children to run to their homes because she could not see the fire heading that direction. Larson continued with two children who lived close to her home. The smoke created by the fire kept them from making it to a depot in search of a relief train, so they took shelter with another member of the community. Larson and the man she sought shelter with kept themselves and the children alive by applying wet cloths to their faces. While she watched the children in the house, the man worked to fireproof the area by dousing everything with water. Eventually, she and the children had to seek shelter elsewhere. Larson notes that many congregated at this second shelter. She attributes the congregating to a shared sense that the only way the settlers believed they would survive would be to gather together and take a stand against the fire. Perhaps that sense of standing together allowed all of these individuals to survive the night.[143]

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[142] *Ibid*, 7-8.
[143] *Ibid*, 9-13.

Like the survivors at Hinckley, the survivors of the Beltrami County blaze were complacent leading up to the fire. They believed that the fire would never reach them or that even if the fire would reach them, that it would be easily managed. This level of complacency stymied any level of preventative preparation, leaving only an individual's ability to react to be the thing that separated them from life and death. Neither group saw the fire coming. Nor did either group believe that the fire that came could do the damage that it did. Again, in each case, both emergency phases were primarily demonstrated through personal heroism instead of an organized response.

The following morning, the survivors boarded a relief train for Baudette, for the entire town of Graceton had been leveled. Larson then traveled to her home in Spooner and rested for a few days but by October 7th, 1910, the fires came and destroyed the towns of Spooner and Baudette.[144] Once again, Larson points out that none of the inhabitants of the town believed that they were at risk of fire. They believed that they were in a safe place, they believed the fire would not advance towards them, and even if it did, they believed that they could contain it with a few simple hoses.[145]

Despite their general lack of understanding of the strength with which the fire would rage upon them, the people of Spooner and Baudette demonstrated a marked improvement in preparedness. Even though they did not believe they would be fighting a major fire, or that their towns would be destroyed, they still managed to set up the hoses in strategic places, send telegrams to a small Canadian town across the river to prepare relief trains to evacuate people if

[144] *Ibid*, 13-21.
[145] *Ibid*, 21-23.

needed, and to post watchmen to sound an alarm that the fire would be entering town. Unfortunately for the settlers at Baudette and Spooner, it did.[146]

As the fire reached Spooner on October 7th, its citizens heard the relief train barreling in from the Canadian town of Rainy River. Unfortunately, trains can only hold so many people. As a result, those who could not get on the train were in a panic. Many children did not even gain space, and by the time the relief train left, Rainy River was also on fire. Larson describes a few brave men who had run to the local lumber mill. These men utilized a hose in the facility to fight the fire and saved many people. Larson and her family took shelter in a rocky area near the river along with many others who were there or in the water itself. By October 8th, most of the town (all except the lumber mill) became ash.[147]

Like other fires, much of the relief began within the town as it tried to get back on its feet. The surviving buildings were utilized to house many families, and larger structures like the lumber mill would be used to reunite families and to serve what food and medical services would be available. Local doctors would have to treat all of the victims for burns, for blindness, and even individuals who had their eyes melted shut by the flames.[148]

Shortly after the fire had passed, the relief efforts began in full swing. By October 12, Minnesota Governor A. O. Eberhart had arrived and had been actively seeking the establishment of a $100,000 fund to relieve the fire sufferers. Shockingly, among those who sent relief were people from Chisholm still in recovery from its fire two years earlier. State Militia did a great deal of the grunt work. It was their task to set up tents and create places for the fire victims to

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[146] *Ibid*, 21-25.
[147] *Ibid*, 25-31.
[148] *Ibid*, 40-53; 83-84.

stay. They were also guarding the town valuables, including the bank safes which survived the fire. Perhaps the most laborious task for the militia was searching for survivors and collecting the dead.[149]

Many Red Cross members had their fair share of tasks. A handful of the fire sufferers had typhoid fever and other illnesses. Many still had burns or developed illnesses between escaping the flames and being in close quarters with other people that were sick. The Red Cross set up hospital tents and worked diligently to save all who they could save. There were several cases of people who had survived the flames only to perish in a hospital tent days later. Many children with weak immune systems suffered from various fevers that kept them from playing. The elderly, too, were at a heightened risk of illness. The Red Cross did what it could to aid the victims of various diseases and afflictions. However, the cramped quarters made it difficult for many to have any comfort or peace, and it would be difficult for them not to hear the pain of others.[150]

After the militia had collected the dead, a burial trench was dug out at the Baudette Cemetery. Not all of the corpses were in a condition to be put in a casket as the flames were hot enough to cremate many of the dead. The intact bodies exceeded the number of ready-made caskets; thus, boxes were hastily constructed to meet the needs. A mass funeral service was provided at the mass grave to give many of the surviving victims an essential sense of closure for their community.[151]

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[149] *Ibid,* 65-67. "Fire Fund has Started," *The Bemidji Daily Pioneer*, October 12th 1910, 1.; "Baudette Fire Sufferers Flock towards Bemidji," *The Bemidji Daily Pioneer*, October 12th 1910, 1. "Minnesota will be asked to donate $100,000 to help victims in the northern part of the state," *The Duluth Herald* October 12th, 1910, 1.
[150] Larson, *Tales from the Minnesota Forest Fires,* 66.
[151] *Ibid*, 77-78.

After the mass burial, more relief trains came upon the Canadian Northern Railroad. Instead of being a means of safety, these trains brought needed supplies to restore order to the decimated towns. These trains brought food, beds, stoves and other necessities to town. These things were sorely needed because in late October in northern Minnesota, the tents the victims were living in could no longer withstand the weather. Soon, the victims could trade their tents in for small wooded structures that could better resist below zero temperatures. [152]

Larson highlights a perplexing problem with relief efforts: human pride. Larson provides several examples of people in desperate need of assistance as a result of their houses being burned down and all of their property lost, but they struggled to accept help from others out of pride. For example, a small boy came to where relief goods were being stored. He did not address anyone, and one of the aides asked him what he needed. He looked down and claimed he needed boots. When asked to take them off to see what size he needed, the boy melted down and said that his boots were fine, but his mother needed yarn to fix the holes in his socks. Larson notes that many others were likewise ashamed to admit that they needed something.[153]

Larson also takes time to highlight a more touching moment of relief given to the town. With everything destroyed in early October, it would be difficult not only for the adults to restore necessities, but also to provide simple gifts for their children on Christmas. Most of the children likely lost all of their toys and other comforts. Some of the town's children looked to Santa Claus to look after their needs. Caring citizens from across the state ensured that those children would have a good Christmas despite having lost their homes. Each child received a toy, some fruit, and

[152] *Ibid*, 78-80.
[153] *Ibid*, 85.

candy. This gift undoubtedly brought relief not only to the children, but also to their parents. This part of the relief effort might have been among the most important. It demonstrates not a practical relief but an emotional one.[154]

The towns were quickly rebuilt as men worked long hours to construct the various buildings, churches, schools, banks, and others needed to constitute a town. The farming community outside of the towns benefitted greatly after the flames. With over a million acres burned across the state, the land was clear for more extensive ranges of farming. The state provided seed for the farmers, and in the following summer after the fires, there could be seen a healthy crop where there once were ashes.[155]

The following Memorial Day after the fire, there was a parade and ceremony to offer one last bit of closure for the fire sufferers. People laid down flowers for the dead at the mass grave, and there were addresses and sermons given there as well. Among the attendees was Christopher Columbus Andrews, who, after the first administrated fire response since the Hinckley fire, retired at the age of 82 at the end of the fire season punctuated by the Beltrami County Fire.[156]

The Lake State Forest Fire Conference 1910

On December 6th and 7th, the first-ever Lake State Forest Fire Conference was held in St. Paul. The idea for such a conference came from the State Forestry Board in the previous spring. The initial goal was to create a legislative committee that would work out fire prevention legislation. It became apparent to the State Forestry Board that Wisconsin and Michigan also

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[154] *Ibid*, 86.
[155] *Ibid*, 89-90.
[156] *Ibid*, 92. Pyne, *Year of the Fires*, 228-235.

belonged at such a conference to share ideas and support for legislation that would improve fire prevention in each state. A conservation convention in the Twin Cities helped inform the program for that conference that had many prestigious Minnesotans in attendance, including the mayor of St. Paul, Governor Eberhart, Forest Commissioner Andrews, and others. Although the conference had been dreamt up the previous spring, the obvious elephant in the room was the aftermath of the Beltrami County Blaze and the effect that it had on many of the conference attendees who became involved in the recovery of the area at various levels.[157]

For many of the conference attendees, the key concern was not what fires contributed to a loss of life, but what it cost in terms of the stock of trees in Minnesota. When Z. D. Scott, president of the State Forestry Board and Chairman of the conference called the conference to order, he primarily discussed the condition of Minnesota forests and what the series of fires had done to them. Chairman Scott was happy to report to the conference that Minnesota was the only state attending that had kept its state lands and merely sold the timber rights on said land. This fact would be necessary for discussions of reforesting each state.[158]

The second person to speak was St. Paul Mayor Herbert Keller, providing a lumberman's perspective. Keller argued that the fire problem in the Lake States was both a humanitarian crisis and an economic problem. The humanitarian crisis of great forest fires was apparent, but the economic crisis not as much. Timber made up one of the state's most critical natural resources that could be sold to other states for the construction of towns and cities. If fire ravaged Minnesota's forests, the state could not make nearly the amount of money that it could from such

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[157] *Proceedings of the Lake State Forest Fire Conference*, 5.
[158] *Ibid*, 6.

a valuable natural resource. Keller said, "the great element of fire will come along and do more damage in the way of destroying valuable forests and timber than can be done in a great many years than in a loose method in the sale of our public lands." Keller was trying to explain that a single fire could irreversibly destroy more timber than several years of current logging practices. Keller closed his address, arguing that the money spent to prevent fires would save money because every dollar spent to prevent a fire will save the state and its citizen's several dollars in damages from the fire.[159]

The third person to address the conference was Governor Eberhardt, who provided a passionate speech about how to draw the attention of the state legislature to a forest fire prevention bill. Governor Eberhardt argued that the governors present including Francis McGovern, the Governor-elect of Wisconsin, were there to learn what they could about forest fire prevention and to throw their support to state forestry personnel in the 1911 legislative session to begin the following month. Much of Eberhardt's speech was meant to guide the conference attendees on how to convince the legislature to act.

Eberhardt argued that the attendees needed to approach the legislature with a bill that would possess concrete reasoning based on facts. He suggested that the attendees needed to present facts and experiences from other states to more or less prove that the law and money spent to enforce it would yield success. He claimed that the legislature would be more favorable toward copying the laws of a state that had practiced similar, if not the same measures proposed, for several years. Eberhardt described the legislature as noncorrupt, but instead practical, and if

[159] *Ibid*, 7-8.

the attendees came to the legislature with a robust fact-supported case, they would be able to pass whatever law they would like.[160]

Shifting gears, Governor Eberhardt demonstrated how an emotional call to action could mandate legislative action. Eberhardt began by describing the devastation that had impacted Hinckley, Chisholm, and Baudette. He narrowed his focus to a particular moment when he went up to Baudette to assist in the burial of fire victims. He gently described an image of a burial trench and the image of the corpses of children fused to those of their parents. He then said,

> I felt that the state owed a duty to the people who are residing in our forests that no expenditure of money could satisfy. It does not make any difference how much it may cost, if practical results can be brought about for avoiding or stopping of forest fires Minnesota owes a duty to its people to see that in the future proper protective measures are taken.

In other words, the loss of life in these fires meant that the state owed a debt to its people. Eberhardt knew that the legislature might, as it traditionally had been, be reluctant to spend money on something like fire prevention. By using the images he chose based on his own experiences, Eberhardt demonstrated how the legislature could be persuaded to spend considerable money on fire prevention, because it ought to honor those that died because proper measures were not taken.[161]

The final important thing that Governor Eberhardt's address did was highlight an essential item missing in previous fire prevention laws that would assist in the administrative side of legal matters: assessing blame. Eberhardt explained that governments worked better when

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[160] *Ibid*, 10-11.
[161] *Ibid*, 11-12.

officials who were in charge of a given set of duties could be punished for failures. Eberhardt believed that there were too many councils and other committees that could shift the blame for something onto another organization simply because there was not one particular group that was assigned responsibility for something. In other words, in regards to fire prevention, there needed to be one group responsible for fire prevention and if individuals failed in their duties, they could then be fired and replaced by more capable people. The reason official responsibility was essential to Eberhardt, was that he believed the legislature would give more money to people who were deemed responsible for a specific set of duties and could be removed from office for failing them.[162]

The fourth influential presenter was none other than Forestry Commissioner Andrews, who delivered both a short speech as well as a paper on how Minnesota had fared in terms of fires since the Hinckley conflagration. Much of what Andrews said at the conference was more or less a dress rehearsal for the "special report" he would have to give on the Beltrami County blaze in the following month, to be discussed later. Andrews gave a summary of how the Forest Commission worked in Minnesota and its history for the past fifteen years. Andrews addressed some problems with the system including the continually changing fire wardens (due to local elections) and the need to train new and inexperienced wardens. After his brief remarks, he transitioned to his paper, which would more or less become his "special report."[163]

Andrews had tailored his paper more specifically to the conference than what would be given as his “special report.” He began by giving an overview of the to-date fire statistics from

[162] *Ibid*, 12-14.
[163] *Ibid*, 16-17.

the great fires across the Lake States from Peshtigo to Beltrami County. Andrews drew an important conclusion that there was a link between these great fires and settlement in the forested regions of these states. Andrews claimed these areas had, “increasing risks from the activities of new settlements, logging and mineral industries, campers, tourists and hunters, and notwithstanding dry seasons." Here, Andrews claimed that human expansion into the forest region spelled danger for the ecosystem when combining with a dry season because fires would become inevitable.[164]

Andrews pushed many ideas on the conference attendees about fire prevention. He argued for increased appropriation to pay men of more exceptional character to enforce the law. He called for stricter enforcement of the current laws. He claimed that had he the appropriations and the laws passed that he had suggested over the past decade that there would have been no fire in either Chisholm or Beltrami County. Unfortunately for Andrews, the conference would not take into account all of his suggestions when it came time to deliver resolutions on December 7th.[165]

Many of the conference resolutions appear to have been influenced at least in part by Governor Eberhardt and Commissioner Andrews. The first resolution was a series of nine recommendations to each state legislature for conducting forest fire prevention measures. The first suggestion was to create a forestry commission of several members that would appoint the person enforcing forest fire prevention law (i.e., Chief Fire Warden or Forest Commissioner). The second recommendation was bleak. The conference believed that the current fire prevention

[164] *Ibid*, 17-18.
[165] *Ibid*, 18-23.

system did not work and could not meet any of the states' needs to preserve life and property. They recommended that the states expand their respective programs significantly and add a fire patrol to their payroll.[166]

The third recommendation was to give the forest commission communicative powers outside of the state. The goal would be that the forest commission could communicate with equivalent organizations in nearby states and at the national level to organize a more robust fire prevention system. The fourth recommendation went against the wishes of Andrews by claiming that a general slashings law could never work in practice but conceded that the commission ought to be able to order the burning of slashings when it deemed fit.[167]

The fifth recommendation provides an exciting insight into the problems of the conference. The fifth recommendation was to strictly enforce land clearing regulations during the dry season. They recommended that land clearing ought to be overseen by a patrolman to ensure the fire did not go too far out of control. The reason that this particular recommendation shows a problem with the conference is that it does not logically connect with the previous recommendation. Burning slashings and clearing land are intimately related because one creates the most significant fuel source, and the other provides the match. If the fuel were removed from the equation, land clearing would be safer. The inconsistent recommendation was caused by the presence of lumbermen who likely argued that they could not sufficiently burn slash, but that their land clearing counterparts ought to take all of the blame.[168]

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[166] *Ibid*, 164-165.
[167] *Ibid*, 165.
[168] *Ibid*, 165.

The sixth and seventh recommendations involved clearing up debris. The sixth recommendation targeted the railroad right of ways and pushed that the clearing of those areas needed to be overseen by the commission. The conference recommended that the railroad be forced to hire a patrol to follow the trains during the fire season. The seventh recommendation was to clear areas near towns and villages of debris and to construct fire lines to make towns more resistant to fire.[169]

The eighth recommendation looked to improve firefighting drastically. The conference recommended the establishment of telephone lines, lookout stations and adequate transportation for those fighting the fire to ensure a quick and effective response. If the infrastructure suggestions were put into place, the resistance of many of the forest regions to fire would be significantly increased. The final recommendation was to spare no expense. The conference wholly believed that the devastation caused thus far by fires was insulting. Too many lives had been lost, and too much of the states' natural resources had disappeared. To the attendees, no price could be too much to preserve those things.[170]

The second resolution was that they needed to ensure that one forest patrol officer would patrol 40,000 acres. The third resolution was that each county ought to have a firefighting group, whose sole job would be to put out fires that had already started. The state would pay these firefighters, and the state would then charge the county for their services. The conference believed that if the state paid the initial bill, the firefighters would receive payment without a hiccup but then the state could charge the county making the firefighters ultimately the

[169] *Ibid, 165-166.*
[170] *Ibid*, 166.

responsibility of the county. The final resolution was to educate. The conference was convinced that public negligence was a significant problem that needed to be stopped. Thus, they resolved that they needed a campaign for forest fire awareness throughout each state.[171]

In many ways, the Lake State Forest Fire Conference was a success. It created a coalition of individuals from many states to work towards a concerted push for change. However, not all of the attendees agreed on how to push for that change or what changes needed to occur in each state. The resolutions of the conference would inform the 1911 forest fire law, but a much more enormous contribution would come out of a bill suggested by Commissioner Andrews following his "Special Report" to the legislature.

Fighting the Fires and Finding Legislation

Throughout the 1910 fire season, Andrews managed over fifteen thousand fire wardens to combat over one million acres of flame throughout twenty-nine counties, blazes which destroyed almost four hundred townships.[172] These statistics, according to the Andrews report, do not include the tragedy in Baudette, Spooner, and Graceton. Andrews issued a forty-page "special report" on the Beltrami County Blaze as a foreword to his usual annual reports in an attempt to sway the government to both take the threat of fires seriously, and to improve the fire warden system.[173]

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[171] *Ibid*, 166-168.
[172] The math in Pyne's work is somewhat misleading. The fires in Beltrami County alone did not burn over a million acres, but instead, over one million acres burned throughout twenty-nine counties. Andrews never obtained the damages or acreage of the Beltrami County Fires, so they are statistically challenging to place. However, the significance of the fire is not diminished by the lack of statistical evidence for it. For the breakdown of the available statistics; Andrews, *Sixteenth Annual Report*, 37.
[173] *Ibid*, 3.

Andrews opened his special report with two sets of unfortunate circumstances. The first was the nature of the 1910 fire season. According to the U.S. Weather Bureau at the time, the year of 1910 was the driest on record in Minnesota. Andrews argued that the dry season correlated with an impressive series of fires that immolated over one million acres of land and caused close to two million dollars in damages (excluding the Beltrami County Blaze). The second unfortunate circumstance was the lack of payment for the men who fought the million-acre flames. According to Andrews, over $94,000 was owed to a plethora of fire wardens that saved dozens of Minnesota towns and townships from destruction.[174]

The lack of pay for the men that served under him infuriated Andrews. Andrews claimed that just under nine thousand fire wardens saved the state from decimation and that two-thirds of these individuals fought more than one fire. To Andrews, it was a complete and utter shame that some of these heroes had to wait over six months for their pay and that there was still over ninety thousand dollars left to pay. Andrews called for better appropriations to pay his fire wardens based on the New York model.[175] Andrews lamented that he had requested $38,000 for fire prevention for the 1910 season and was only allotted $21,000. For Andrews, if he could have had the additional monies to pay both fire wardens and fire patrols, he could have managed to prevent a great deal of the fires that occurred during the 1910 season.[176]

In his "special report," Andrews demanded significant changes to the laws governing the fire warden system. The three fundamental changes were increased appropriations, the institution

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[174] *Ibid*, 3.
[175] According to Andrews, the state of New York had been appropriating $93,000 as the state's share of the financial burden to fight fires since 1903. Andrews believed firmly that a higher appropriation would increase the effectiveness of fire prevention.
[176] *Ibid*, 4. Alice E. Andrews, *Christopher C. Andrews: Recollections 1829-1922* (St. Paul: 1928), 290-291.

of a fire patrol that would act independently from townships and fire wardens, and a general ban on the burning of slashings during the fire season. To argue for increased appropriations, Andrews drew from lessons learned from the trilogy of great fires that had impacted the state. Andrews' argument was simple, fires happen because laws are not enforced, and people need to be paid to enforce the law. Thus, the state needed to set a more significant appropriation to enforce the law. Andrews claimed that the $11,000 appropriation after the Hinckley fire was not even close to good enough to fight the fires, namely because the average fire damages each year numbered right around $30,000. Andrews drew from the Chisholm fire that careless citizens had created the blaze and that even with a raise to $21,000, the fire wardens and forest rangers could not keep up with the cost of fires.[177]

The crux of Andrews argument was the 1910 fire season. With the destruction of over one million acres and damages near double that, a $21,000 appropriation could not come close to covering the preventative measures, much less fight the fires once they occurred. If the state did not want to lose a significant amount of money, particularly in timber lost in large fires, it would have to appropriate more money to the prevention of forest fires. Andrews reminded his readers that the value of Minnesota forests was over one hundred million dollars and that the current appropriation could not protect that wealth. According to Andrews, the appropriation could not even cover the cost of prevention in a county. Andrews noted that the United States appropriated over $24,000 for the Minnesota National Forest, which was a total of three hundred thousand

[177] Andrews, *Sixteenth Annual Report of the Forest Commissioner*, 4-6.

acres of land. Andrews argued that Minnesota's reputation was falling apart because of its stinginess and that it needed to appropriate more money to prevent forest fires.[178]

Andrews did not merely criticize the legislature's small appropriations, but he also recommended a comprehensive plan for appropriations regarding fire prevention. Andrews recommended that the legislature appropriate $200,000 for the prevention of forest fires. The funds would pay for the wages of fire wardens, patrols, lookouts, and rangers. It would also cover fire lines (trenches dug to limit where fire can spread), and the establishment of telephone lines to create a rapid response for suppressing the fire. Here, Andrews asked for money not just to fight fires the way that he always had, but to elevate the ability of the fire warden system to respond to the disaster. Andrews argued that in addition to practical fire prevention, the appropriation amount would demonstrate the gravity of the state's intentions to prevent fires and thus deter anyone who contemplated starting one. Finally, Andrews argued that such an appropriation would cause Minnesota to be seen as a leader in forest fire prevention. Had Andrews' suggestions been successful, Minnesota fire prevention practices would have changed significantly and its ability to respond effectively to disasters increased.[179]

The second necessary change Andrews wished upon the fire warden system involved hiring permanent forest rangers. He argued that the twenty-six temporary rangers managed to be very successful in preventing forest fires during the recent fire season. Andrews argued that their importance lay in their ability to enforce the law and convict people who were violating the *Forest Preservation Act*. Andrews argued that the rangers would prosecute the violators of the

[178] *Ibid*, 6-7.
[179] *Ibid*, 16.

law that the fire wardens refused to prosecute. In the past fifteen years, Andrews had noticed a significant flaw with the fire warden system. Namely, that since these fire wardens were serving their small town, they would let some violations slide on account that the fire warden knew the perpetrator or had accepted a bribe. Andrews noted that since the forest ranger traveled for work and did not stay in one town too long, they could enforce the law impartially without sacrificing their reputation in their local community.[180]

Andrews argued that for the ranger service to be active, it had to be expensive. Andrews claimed that there were about 800 towns and townships that would be rendered safer if put under the jurisdiction of the fire wardens. Andrews argued that around one hundred rangers would be needed to patrol those areas. Andrews estimated that the cost of the ranger services would be around $100,000. For Andrews, more men of higher moral quality would serve as rangers if they received higher pay. Although this concept is a little dated, it served a practical purpose. If the rangers were paid well, it would be less likely for the ranger to accept a bribe from a violator. If rangers and fire wardens stopped accepting bribes, the risk of fires being caused by various vagrants would be lessened, and the overall fire security of the state would increase.[181]

For Andrews, the forest rangers had to be the exemplar citizen in order to meet the needs of the state. They had to be honest and not take the bribe of any wealthy man to look the other way. In order to limit the success of an attempted bribe, Andrews suggested a salary of $625 per year. However, the state would get its money's worth out of the deal. They would be responsible for four town or townships, and they would be required to construct fire lines to keep fires from

[180] *Ibid*, 13.
[181] *Ibid*, 13.

spreading. They would also be in charge of burning any slash that they would find in the course of their duties. The amount of responsibility was well worth the pay.[182]

The most important legal change Andrews wanted to see was a new law regulating when slashings could be burned. Andrews had previously attempted to legally require lumber companies to burn their slash immediately in 1905. However, the state lumber lobby aggressively repressed the bill. Instead, a bill was passed that allowed the lumber companies to burn to slash whenever it was convenient before May 1st. In 1910, Andrews attempted to propose a new law on burning slashings that stipulated the law did not specifically target lumber companies but any person who would burn slashings in the state. The law left out the burning of hardwood slashings which took longer to catch flame and burn.[183]

Andrews argued for a ban on slashings based on how previous regulations had been successful in the past. Andrews used the 1902 Morris Act. The Morris Act regulated logging on Ojibway lands in Minnesota, particularly in the region that would become Minnesota National Forest. Through this law, after 1908 all slashings in the Minnesota National Forest had to be burned immediately upon cutting to preserve the forest from fires. However, laws that lacked enforcement were mute. Since the state gave little money to enforce the laws against burning slashings, the laws would not be followed, and the fuel would accumulate at the forest floor.[184]

To garner support for his ideas, Andrews relied on the words of one of Minnesota's most well-known lumbermen, Frederick Weyerhaeuser. Andrews quoted a speech given by

[182] *Ibid*, 16.
[183] *Ibid*, 9.
[184] *Ibid*, 9-10.

Weyerhaeuser in his “special report” that spoke favorably of a law compelling slashing to be burned. Weyerhaeuser claimed that lumbermen were guilty of causing many fires and were wrong for fighting against reform measures taken on by conservationists. Weyerhaeuser recalled to his audience the opposition to Andrews' bill in 1905. Weyerhaeuser claimed that once the government began to require slashing to be burned immediately at Leech Lake Reservation, the lumbermen learned an essential lesson about preventing fires and maintaining a healthy forest from the law.[185]

In addition to the above significant changes, Andrews wanted to do what he could to tweak the fire wardens themselves. Andrews noticed a problem with the concept of automatically appointing the town supervisors as fire wardens. Namely, new fire wardens had to be trained all of the time because of local elections. It would be a far better system if each town possessed a permanent fire warden. Andrews suggested that there be a transition between the town supervisors and a permanent warden as quickly as could be done. He suggested an increase in wage as well so that the fire wardens would be paid three dollars per day for at least sixty days out of the year.[186]

In his special report, Andrews wanted to argue for a stricter set of prosecutorial measures in hopes of limiting fire in the coming years. Andrews doubled down on his claims that the law was useless unless enforced. He explained that the state could not furnish a fire warden or ranger to observe every single person that wanted to clear land, burn slash, or otherwise violate the law. Instead, Andrews argued, "Examples must be made of those who violate the law so that others

[185] *Ibid*, 10-12.
[186] *Ibid*, 16-17.

will be restrained from negligence in the use of fire." Andrews' solution to this problem would be to increase the appropriation for prosecutions under the law from $2,000 to $30,000. For Andrews, the increased appropriation would help convince the county magistrates and county prosecutors to do a better job of convicting those who violated the law.[187]

Fire Statistics for 1910

As one can imagine, the fire statistics for 1910 would be a little more sophisticated than in 1895. However, there are some surprising results nonetheless. As mentioned above, over one million acres burned during the 1910 fire season. The breakdown of the causes of these fires is far more complicated than in previous years. Sixty-seven fires that year were caused by people attempting to burn brush so that they could clear land. People burning meadows caused an additional nine fires. Negligent campers caused a total of twenty-four fires. Farmers and homesteaders started fifty-eight fires attempting to clear land. The campfires of fishers and hunters led to the ignition of seventeen fires. In forty-six cases, fires were generated by sparks from a fire in a nearby town. One hundred eighty-three fires were caused by the railroad. Under the ambiguous column of "other," 55 fires were listed. Perhaps the most staggering statistic among these was that four hundred seventy-seven of these fires were started via an unknown cause. Even with fifteen years of practice, the fire warden system could not determine the cause of the majority of fires. It would appear evident that the greatest threat for the forests and town in northern Minnesota were the railroads because their statistic is the highest. However, if we interpret the data in a way similar to Andrews, under the umbrella term of "negligence" there are somewhere between 175 and 230 fires caused based on whether or not the category of "other" is

[187] *Ibid*, 17.

included. One could even lump the railroad fires into a general interpretation of negligence because the railroad fires would be caused by damaged spark arresters bringing the total to 413 fires caused by negligence. It is objectively more difficult to fight against a character trait or set of beliefs than it is to fight against a more definite cause, such as sparks from a railroad. The reason Andrews likely emphasized increased appropriations for stricter enforcement of the law over the development of new firefighting measures was because he recognized that strict enforcement and punishment would be his only tool to combat negligence.[188]

Laws Passed and Unpassed

In early 1911, Andrews introduced a bill that included all legal changes he wished to see and mentioned in his "special report." The Forestry Committee of the state legislature did not approve of the bill, and Andrews yielded. However, the bill would be workshopped by the Forestry Board and would be passed on April 12th, 1911. Section 24 of the law generated money for fire control through an additional property tax that would go into the local "fire fund." Towns would have control over the amount taxed on all property within their district. Through the spring and into July, the appropriation would be $50,000 and after the 31st would increase to $150,000 until the following July.[189]

The new forestry law gave a series of powers and responsibilities to the State Forestry Board. This forestry board would be in charge of managing state forest lands. The board had to supervise all reforestation projects and administrate the protection of the forest land from abuse and fire. The board members would be in charge of generating the best possible ways for the

[188] *Ibid*, 37.
[189] *Ibid*, 55.

clearing the forest land of fuel for fires and to generate the best possible modes of fire protection. They tasked themselves with convincing local landowners to grow timber instead of cut it, especially in areas with water. In December of each year, the Forestry Board would be required to provide its annual report of its findings.[190]

The board was also required to appoint a state forester. The state forester had a similar relationship with the Forestry Board that the chief fire warden had with the State Auditor/Forest Commissioner. Namely, the state forester was the chief enforcer of the law and the additional policies generated by the Forestry Board. The state forester had the power of appointing assistants to help enforce the law. Again, similar to the duties of the chief fire warden, the state forester had to maintain data on the quality and kinds of forests throughout the state. The state forester had the power to manage the existent fire warden system. The state forester had to keep in ample communication with the forest rangers who would report to him on the status of fires and violators of the act. The state forester would also have to make an annual report to the Forestry Board.[191]

The state forester was also given what one might call communicative powers. The state forester had to be in contact with the state auditor over forest protection matters. They also had to be in contact with state highway officials concerning the construction of fire lines. One of the more interesting communicative powers given was the ability of the State Forester to educate the people of the state in ways he deemed fit. Education could take the form of pamphlets that warned of fire dangers, or in the form of lectures at the University of Minnesota. The educational

[190] *Ibid*, 50-55.
[191] *Ibid*, 50-55.

aspect of the communicative powers recognized that although fire is a practical problem with a more or less mechanical cause and solution, fire is also a significant cultural problem and people needed to be aware of the harm that was being caused by negligence.[192]

The state forester had the power of developing fire patrol districts under the supervision of the Forestry Board. These districts would be patrolled by the forest rangers who were given virtually the same powers as the fire wardens fifteen years prior. They could arrest violators of the act without a warrant, and they could appoint men over the age of 18 as temporary firefighters in the event of a fire. An essential additional power the forest ranger had beyond what the fire wardens had was the ability to appoint deputy patrolmen to keep patrol in their assigned district. This marked an essential change in fire prevention in Minnesota. The locals in charge of forest prevention could now employ a permanent patrol force to watch out for fires instead of only being able to appoint temporary firefighters as a reaction to ablaze.[193]

The law's restrictions on the railroad were very similar to the law passed in 1895, with a few essential adjustments. The railroad was still required to train its employees to fight fires and to maintain spark arresters on each train. If an engineer spotted a fire, they would still be required to report in at the nearest town. New restrictions on the railroad would be that in dry areas the railroad would be required to employ patrolmen to watch for fires caused by the train in said areas. If for some reason the company refused, the state forester had the power to appoint patrolmen in that area and bill the railroad for their services. Another restriction was that no railroad employee could leave any sized fire that they came across and were required to fight it

[192] *Ibid*, 50-55.
[193] *Ibid*, 50-55.

until properly extinguished (this particular aspect of the law will come into play in the following chapter). If a railroad company violated any of these laws, they would have to pay up to $100 for each violation and the state's costs for prosecuting the cases.[194]

Much to the approval of Andrews, the law rigorously restricted the burning of slashings and the clearing of land. If the state forester deemed a collection of slashings dangerous, he could give notice to the logging company or the private individual that the slashings must be burned immediately. If the notice was refused, the fine could be up to $100 and the refuser would have to pay the prosecutorial expenses incurred by the state. If for some reason the circumstances did not allow for all of the slashings to be burned, the logging company or private individual would have to construct fire lines around the debris suitable to the state forester. If the state forester was refused by those he gave notice to, the State Forester could send men onto the property and burn all of the slashings, the cost of which would take the form of a lien on that property. No land clearing attempts using fire could be made without the proper constructions of fire lines first. The section of the law that regulated burning slash and clearing land assisted the prevention of fires caused by things that greatly concerned Andrews and many of those that served under him.[195]

The law changed a considerable amount in terms of pay for those fighting fires. Instead of a fixed amount of pay per day for fighting fires, those called to fight fires would be paid hourly. There would still be a cap on how much the state could pay these impromptu firefighters, but it was more flexible than in previous years. The state could pay no more than $5000 to fight any single fire. In 1895, that had been the cost of the entire program. The cap may appear small,

[194] *Ibid*, 50-55.
[195] *Ibid*, 50-55.

but when applied to any single fire, the money could cover the cost of hundreds of firefighters to fight any given fire over several hours making firefighting in cases of emergency far more practicable than in previous years.[196]

The law also made requirements of various cities and non-forestry personnel in forested areas. Every town, village, and the municipality had to clear any fuel in their area and create at least two fire breaks that completely encircled the town. The strategy would be to set a backfire between the fire breaks to deprive an oncoming fire of fuel and thus saving the town. All individuals in charge of highways were given the additional duties of finding unattended campfires and putting them out, and if possible to find and prosecute the people who left them unattended.[197]

The final necessary provision of the law involved placing blame for more massive fires. If either a corporation or person was to start a fire under any circumstance and that fire damaged the property of another, "it shall be prima facie evidence that the party so setting such fire is guilty of negligence in setting the same and allowing it to spread." This clause would become important in 1918 as many courts took on the duties of determining who is to blame for the fire. The person or corporation could not escape blame by appeal under this law unless two sureties were given to the judge and deemed acceptable. The judge would then be required under this act to provide their judgment of the sureties to the state forester.[198]

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[196] *Ibid*, 50-55.
[197] *Ibid*, 50-55.
[198] *Ibid*, 51.

The 1911 fire law came at the culmination of an uphill battle by conservationists like Andrews. With fire prevention at the heart of the conservation movement, conservationists pushed for various laws and reforms throughout the state. Each time, they would be checked by the organization they were attacking, their precautions and pleas deemed unnecessary by the state and company lobbies. Even when tragedy struck, it had to be the real tragedy. As one can see, there was a stark difference between the aftermath of the Chisholm fire and the Beltrami County blaze.

The Chisholm fire was a tragedy; we see from Larson's account that they were still rebuilding by the time of the 1910 fire. Recovery was slow but effective in bringing the town back on its feet. However, when it came to how the legislature responded, there were no sweeping reforms as in the aftermath of the Hinckley or the Beltrami County fires. The only explanation as to why, is that there were no lives lost in the Chisholm fire. That, in itself, is a miracle, but an unfortunate one. It was unfortunate that enough damage was not done in order to get the legislature to act sooner. Although the town lost a great deal, the state lost very little, and the state legislature was not about to make grand reforms having lost so little.

The sole change in policy between the Chisholm fire and the Beltrami County blaze was the creation of a ranger service. However, that ranger service had so few funds that it was not even present in the lead up to the state's second most massive fire. That, in addition to a series of laws enacted and repealed, proposed, and put down paved the way for two of the great fires in state history. Perhaps part of the reason for such an ineffectual legislature was that results would drive it. The whole goal behind the prevention of forest fires is that nothing happens. When nothing happens, it does not appear as though a particular program is necessary. However, when

one looks at when the fires happened and how they happened in connection with a legislature that refused to increase funding or other laws supporting fire prevention, the legislature cannot escape some level of fault for the great fires in state history.

Looking at what follows from the Beltrami County blaze, one can see a significant ramping up in terms of fire prevention. First, there was the Lake State Forest Fire Conference, which brought people together from three states to put their heads together and create a united front against forest fires. Many intellectuals and experienced members of the conference provided papers based on personal experience and research to help inform this group. The group had its flaws; lumbermen managed to convince the conference that some of its ideas would not work. However, the majority of the conference was successful in creating a banner to fly in the name of forest fire prevention.

From the conference, Andrews launched his "special report" and a bill incorporating many of the conference principals before the 1911 session of the state legislature. His suggestions were at first refused, but this time instead of being retooled by his adversaries in lumber companies, his work was augmented by allies in the state forestry board. With these brief augmentations, the legislature passed a new forestry law creating a significantly more robust prevention system on April 12, 1911.

If the narrative were to stop here, it would be a happy ending for people fighting a fierce uphill battle against dangerous forest fires. Unfortunately, this is not the case; within a decade would come a fire that would possess a specific cultural staying power. Most Minnesotans do not remember the Chisholm fire of 1908, some of them have heard a thing or two about Hinckley fire, but most Minnesotans have heard about the devasting Mooselake-Cloquet Fire of 1918.

Chapter IV

Lessons Learned in the Great Fires of 1918

Introduction

The Moose Lake and Cloquet fires of 1918 were one of the most devastating of the great fire events because of the amount of people killed by them. Like the Hinckley fire before it, the 1918 fires killed well over 400 people. They ravaged both the community and the landscape. It is odd to think that after twenty-three years of development and revision of fire prevention programs the deadliness of fire disasters remained the same. Careful study of the 1918 fires reveals that the reason the death count is relatively the same is because the people who were affected by the fire believed that fire was a natural part of their autumnal experience and they felt that there was no cause for concern. Despite the significant changes in fire prevention measures, the survivors of the 1918 fires shared the same belief of the Hinckley fire survivors that fire never would reach them or pose a threat. It was not that they had faith in the system that had been created, but instead a lack of belief that a serious fire would ever erupt and affect them.

Pre-Fire Developments before 1918

After the 1911 forest fire law passed, William Cox presided over the state fires prevention system as state forester. Christopher Andrews now occupied a position as secretary on the State Forestry Board that oversaw his operations. One of the most important developments between the passing of the 1911 law and the fires of 1918 was the establishment of a manual outlining the duties of forest officers in 1913. The creation of a standard manual would eliminate the need to maintain all of the loose-leaf circulars that served as training under Andrews' administration.

Cox, through his manual, commanded a significantly higher system of forest fire prevention than had existed in previous years. Under a category entitled "Improvements" was a list of procedures for the construction of infrastructure to help prevent and combat a fire. The forest rangers were to clear all of the hiking trails and portages to enable the efficient maneuvering of any fire response. These clean trails had an additional purpose of limiting the areas where campers could set up for the night. Many campers or fishers would not want to travel too far off the beaten path, if they were off to the right or the left of the path at a designated campsite, forest rangers could monitor them easier, and any unattended campfires had an increased likelihood of being extinguished.[199]

The manual provided instructions on the construction of lookout towers and cabins that would provide logistical support for the rangers in their duties. The lookout towers could be constructed either out of wood or steel. Cox recommended steel as the preferred material because it was a bit cheaper. The lookout towers needed to be high enough to provide a view of any oncoming fire, and either have a telephone line in them or be nearby enough to communicate any emergency. The cabins would serve as a headquarters for the forest officers and as storage for the forest officer's supplies. These cabins would also be required to possess a phone line or be close enough to a phone line to report an emergency. The goal of Cox was to ensure that all of the lookout towers and cabins would be connected by phone line to ensure instant communication. These towers and cabins represented a significant improvement in developing a response to a disaster. They represent a step forward in the overall preparedness of the state to combat forest fires.[200]

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[199] William T. Cox, *Manual of Instruction for Forest Officers*, (Minnesota Forest Service, 1913), 71-73.
[200] *Ibid*, 72-74.

Cox additionally instructed the forest rangers to work with town leaders in their districts to construct fire breaks to protect the town. Cox instructed that the ranger base the fire break of a given town on the existing geography. The fire break's size needed to be relative to the size of the potential fire that would be coming towards it. The fire break could be smaller or partial if paired up with an inflammable natural border such as a river. The construction of these fire breaks would make the various towns and townships more resistant to fire.[201]

The final improvement the rangers were required to make in their districts was the use of warning signs during dry weather. These signs would hopefully provide a deterrent to any would-be land clearer that it would be improper of them to set anything on fire. Cox suggested that after placing the warning signs for the dry weather, the forest ranger should increase their aggression in prosecuting the people who wished to set a fire illegally. If such a practice were to be followed through, there would be an additional line of defense against anyone who would set the fire deliberately.[202]

The Development of the Cloquet Fire Department

The development of the Cloquet Fire Department illustrates well a false sense of security in the town's safety before the great disaster of 1918. The department started in 1888 and consisted of just a handful of people. It was initially placed strategically by the sawmill, making it easier to manage a fire that could be fueled by the drying lumber. The year of 1915 was a big one for the fire department. The alcoholic chief had a little too much to drink one night, and after a severe fall at the fire pole, the chief suffered both injury and termination of employment. In the same year, the firehouse moved away from the sawmill and further in town. The move would be

[201] *Ibid*, 71-78.
[202] *Ibid*, 71-78.

detrimental later as the fire moved through the lumber mills in town to later destroy all of Cloquet. In 1918, the department made the transition between horse-drawn carts for their water to the Seagrave pump, which could push out water at 250 gallons per minute. This transition was just in time to fight the fires, but unfortunately unable to make a major difference when the fires raged on October 12.[203]

Problematic Culture and Vulnerability

One of the most difficult to grasp concepts of the great fires, and especially of the 1918 fires, was the cultural disposition towards the fire. Many of the fire victims in 1918 did not believe that the fire was going to reach them. Even as they saw the smoke off in the distance, they would never think that it could come as far as their farm or their town. They had not learned from the mistakes of previous fire victims. Their sense of security and perhaps even invincibility because of the success of fighting small fires led them instead towards vulnerability. Had more inhabitants in rural Carlton County fled to Moose Lake at the first sign of danger, they would have survived. Instead, many held onto this horrible disposition that the fire would not reach them. They believed that they were safe. Despite all of the infrastructure and preventative measures that came from the Forest Law of 1911, the hard work of Andrews and lawmakers, could not break the cultural problem that fire was not dangerous. It wasn't so much that the law itself generated a sense of complacency in the inhabitants of Carlton County because they felt they were protected by it. Instead, the belief that everyone had been and always would be fine permeated the settlers' relationship with their environment.

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[203] "Moved to New Fire Hall: City Fire Department Moves into New Fire Hall on Cloquet Avenue This Week" *The Pine Knot* Oct 15, 1915. Herbert L. Johnson, "Fighting Fire during the Early Years of the Cloquet Fire Department" *Pine Journal* Wednesday, January 14th, 2004. "A Look at Cloquet's Fire Department" *Cloquet Pine Knot* October, 19th 1978.

As in the moments before the Hinckley fire, the victims perceived fire as a permanent part of their experience in autumn. The inhabitants of Carlton County knew that fire was bound to be somewhere near them, either in a dry peat bog or along the railroad track somewhere. Someone's attempt at land clearing would get out of their control and cause damage. However, much like a teenager driving without a seatbelt, the inhabitants of Carlton County believed that nothing terrible was going to happen to *them*. Admittedly, it had happened to those who died at Hinckley or those that lost their homes at Chisholm, or those that had suffered in Beltrami County, but there was no way it would happen to them. Unfortunately, it would happen to them. Too many individuals would wait too long to seek help. Their attempts to flee would be feeble, and they would, unfortunately, perish in the horrible flames of October 12th, 1918.[204]

An example of this cultural complacency can be found in an argument between Gladys Huffman and her mother:

> All evening I stood out in the yard watching the red glow in the western sky. My mother, totally unconcerned, sat in the house knitting, and from time to time I would run into her. I was certain that we were in danger. She would reply, "No need to worry, Dad and the other men will put out the fire." I was furious with her, worried for my father's safety and certain that it was the end of the world for us.[205]

In some cases, families fought about their relative safety in the moment, but after the fact they might recall that they stayed far to long. Jennie Isaacson recollected, "Like so many others we lingered too long, thinking all of the time we probably were safe."[206] Many survivors

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[204] Curt Brown, *Minnesota 1918: When FLU, FIRE, and WAR Ravaged the State* (St. Paul, Minnesota Historical Society Press, 2018), 35-40. Francis M Carroll and Franklin R. Raiter, *The Fires of Autumn: The Cloquet-Moose Lake Disaster of 1918* (St. Paul: The Minnesota Historical Society Press, 1990), 40, 83.
[205] Betty Lehet et al. Ed., *1918 Fire Stories: A Collection of Stories and Documents Related to the Forest Fires of 1918 that Devastated a large Area of North Eastern Minnesota* (Moose Lake: Moose Lake Area Historical Society, 2003), 57.
[206] *Ibid*, 60.

recollect something along the lines of, “The weather had been warm and dry and the smell of smoke had been in the air for days,” or “The air smelled of smoke and the sun was a red ball in the sky for weeks.”[207] Many of these families, or at least members of them, had developed a general sense of complacency towards large fires. They believed that fire was always around, and that fire would be taken care of by the menfolk. This led the victims of this fire to not evacuate their homes soon enough.

If only laws were followed

The 1918 fire thoroughly demonstrated that if a company abuses or does not follow the laws regulating it, the law is useless in preventing a calamity. In the area around Moose Lake, the Soo Line railroad had vigorously disobeyed the Forest Law. Just one mile away from Moose Lake, a train spark ignited a fire in the right of way. It took several days before the section crew came to attempt to combat the flames. Not only was the delay negligent, but the absence of a patrol on the line was a violation of the law by both the railroad company and the district forest ranger who was responsible for that area. Perry Swedberg, the forest ranger in the area, ordered the crew to put out the fire. The crew struggled immensely and left before the fire was put out. Leaving a flame was a significant violation of the forest act. Ranger Swedberg worked hard to organize the fight against a total of thirteen such fires on the tracks of this single company. The fact that the right of way possessed combustibles leads one to assume that yet another violation of the law had occurred because it was the railroad's responsibility to keep that area clear.[208]

The Northern Pacific Railroad was only slightly better at following the law. They had employed a legally required patrol. Unfortunately, the patrol, consisting of a single member, was

[207] *Ibid*, 44; 62.
[208] Carroll and Raiter, *Fires of Autumn*, 81-83.

incompetent. George Brand, the lone patrolman, had seen smoke for several days on his various patrols and only managed to report a single fire to section crews. The railroad was not at fault for Brand's negligence but thankfully removed him from that duty and placed him in a position to fight the fires he had failed to report. Then, on October 9th, just three days before the greater conflagrations, the section crew responded to a fire on their lines that threatened the small town of Tamarack. They saved the town, but failed to put out the fire and left. Again, we see the most egregious violation of the Forest Law by the railroads. Had the law been followed and there been men staffed to fight the fire until it was entirely out, many significant fires would not have joined together when the wind picked up and the fire as a whole would have been less intense.[209]

Courses of Fire

Examining the 1918 fires could be perhaps the most challenging part of any history of the state. Although most Minnesotans call it “the 1918 fire,” it actually should be referred to as “the 1918 *fires*" because there were discernible differences between several fires in the area. Some areas have little to no documentation about what occurred in or near their city limits. For the sake of in-depth analysis, this chapter will compare the two most documented fires. The first fire traveled from Automba to Kettle River and then to Moose Lake. The second fire traveled from Brookston through the Fond Du Lac Reservation to Cloquet. Both fires possess incalculable tragedy, but the significant majority of deaths occurred in the Automba-Kettle River-Moose Lake fire. In some cases, entire families perished. In Cloquet, close to the entire town managed to escape the flames on a relief train and survivors congregated in Duluth. Each fire had a different set of source fires that happened to be combined into two separate mass fires on the

[209] *Ibid*, 78.

same day (October 12th, 1918). The areas that each fire burnt over were different. While the Brookston-Fond-Du-Lac-Cloquet fire affected an area with many urban centers with good roads and available rail lines, the Automba-Kettle River-Moose Lake fire burnt a less populated area with fewer roads and less access to sufficient rail lines.

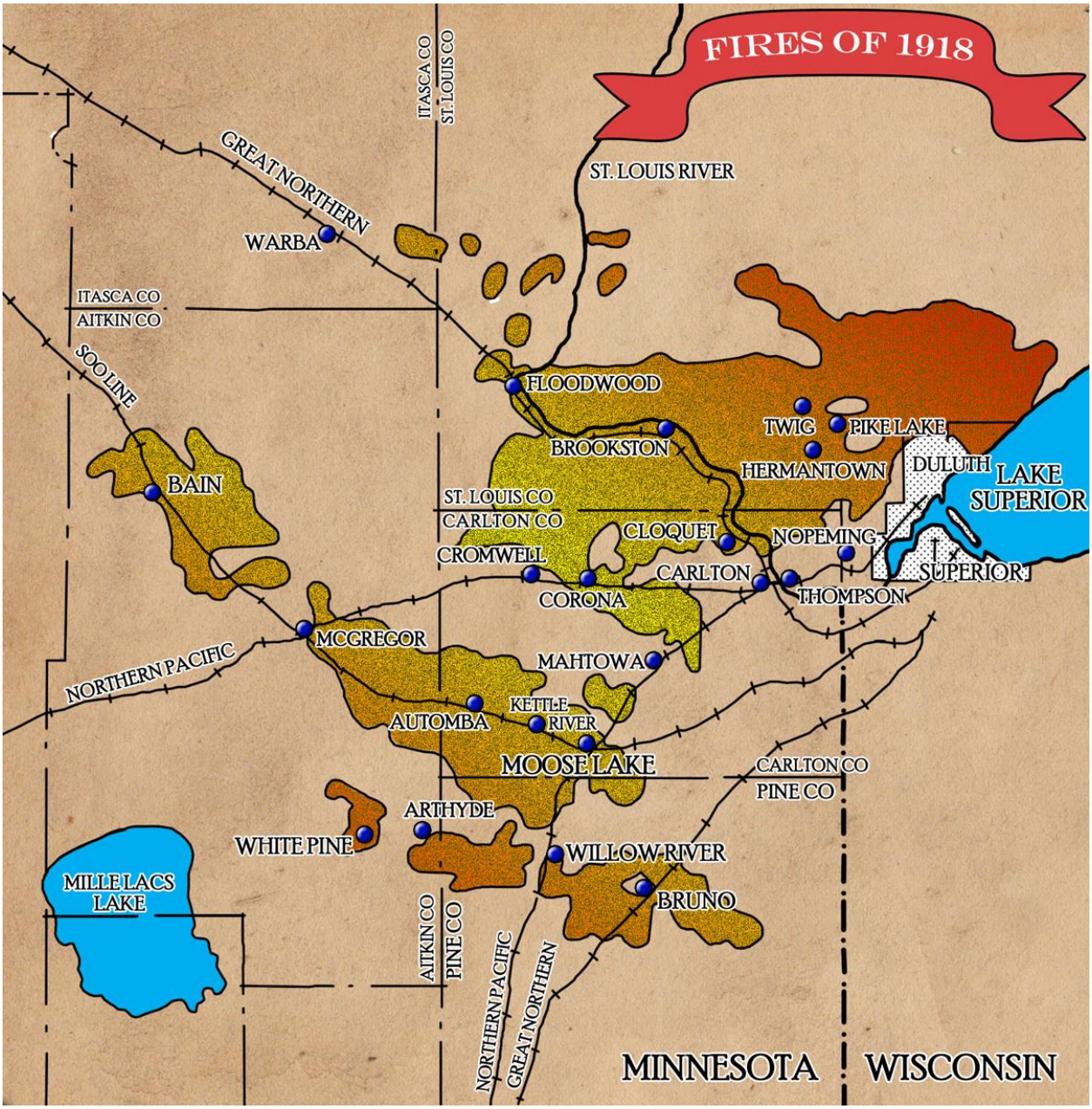

Figure 1: Map of the 1918 Fires[210]

The Automba-Kettle River-Moose Lake fire will be discussed through an under-analyzed people group: children. In 1968, local newspapers collected interviews from survivors and reprinted articles from their archives to commemorate the disaster. Many of those that were adults at the time of the fire had since passed away, but often enough their children were still around to tell the story of their experiences. In some cases where they were only two or three years of age, they would tell the stories that they had heard from their parents repeatedly over the past decades. As a result, most of the accessible documents on the fire come out of the mouths of the children who experienced it. Nobody who previously wrote on the fire has analyzed the narrative from a child's perspective. By doing so, one gains an eerie yet compelling look at how the disaster impacts a community.[211]

Other research has been done utilizing the memories of individuals who were children at the time of traumatic events. In particular, these traumatic events would be prolonged moments of pain like African slavery in the United States or children persecuted during the Holocaust. These histories reveal that the mind of a child can preserve, with accuracy, tragic events that can be recalled later in detail. In other cases, when the children are especially young, their memory of the traumatic event can be informed through stories passed on by older family members. Many survivors who experienced the Minnesota fires as a child describe their memories of October 12th 1918 as being perfectly clear. Some who were under a year old at the time of the fire had grown up hearing their story of survival recounted over and over again as if it were their

[210] This map comes from the website for a local documentary on the fires. "Fires of 1918," *PBS-WDSE-WRPT* https://www.wdse.org/specials/fires accessed 9/26/2019.
[211] Betty Lehet et al. Ed., *1918 Fire Stories*, 1-159.

own memory. The memories of these child survivors were recorded fifty years after the fact, but they still remain vivid. They provide a detailed account of what it was like to experience the terrible fires of 1918. Even if what they recall was slightly off from a newspaper or official account of the fire, the children of the fire recall very similar processes occurring in their respective locations and much can be gleaned from these stories.[212]

Automba-Kettle River- Moose Lake

At a young age, one tends to perceive their father and their older siblings as heroes. In many ways, this was precisely the case in Minnesota as children watched their fathers get called to duty by the fire wardens to save their towns from peril. If they had older brothers of firefighting age (18+), they would be called to duty as well. The fear would set in, for young girls like Lempi Henrikson, just 14 years old, when their heroes would return empty-handed and needing to evacuate. Her humble home in Automba could not find salvation by the efforts of the men she admired. Moreover, if they could not do it, who could? The only thing they could do would be to save themselves. Amid the sound of the house phone ringing pleading with the inhabitants to evacuate as soon as possible, people ran past the Henrikson house towards potential safety.

Lempi recalled seeing Mrs. Siltanen running with children towards her neighbor's house. Lempi, her family, Mrs. Siltanen, and others congregated at her neighbor's house for safety. Mrs. Siltanen had to run through the woods to get to safety; unfortunately, she could only carry one child and lead another; a third child was not quick enough to survive. A ten-year-old girl died of

[212] *Ibid*, 1-159.; Suzanne Vromen, *Hidden Children of the Holocaust: Belgian Nunes and their Daring Rescue of Young Jews from the Nazis* (New York: Oxford University Press, 2008), 23-29.; Paul D. Escott, *Slavery Remembered: A Record of Twentieth-Century Slave Narratives* (Chapel Hill: University of North Carolina Press, 1979), 23-33.

her burns in the Lund house that night as Lempi observed the men taking to the plow to build a fire break. The fire break and a shift in the wind saved Lempi and the others. She stayed with the neighbor family until help and restoration of her family home could be achieved.[213]

Lempi had a seven-year-old sister named Mayme, who happened to be reading as the fire came upon the house. When she escaped, she clung to her book, a First Reader, and it became the sole surviving possession of the family. Her sister-in-law, a school teacher, wrote about the family flight on the opening blank pages of the book. A Moose Lake newspaper published this story in 1919.[214]

The experience of Lempi, along with the other children, demonstrate that the survivors at least attempted to use systems in place to put out the fire. The call to put out the fire that went from house to house and the menfolk going out to fight the fire was a function of the fire warden system. The fire warden would alert the first family who would send someone to the next family in order to muster men to fight the fire. The problem was that by the time the men had arrived, the fire it had grown to an unmanageable size. The men had to return home to save what they could on their own property. What was once an attempt at organization became an "every family for itself" reactionary response. The men built fire breaks, one of the methods of fire protection taught by fire wardens and required by the law for any land-clearing venture to contain fire. While these instances show that attempts were made to utilize systems set in place after the Hinckley fire, the delay in the community to utilize those systems led to the destruction of rural Carlton County.

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[213] Lehet et al., *1918 Fire Stories*, 53-55.
[214] *Ibid*, 57.

Aina Jokimaki, age seven, had her own life-changing experience in Automba that day. Her father and several others had gone to fight fires along the rail line that threatened to engulf the town. She and the rest of her family maintained the farm, sure that the men would have the fire under control and that there would be nothing to worry about. By 4 p.m., the men had returned with the bad news that the fire would not extinguish. As the men came home, the fire had reached the town proper, Aina watched the local lumber mill burst into flames. An explosion aided the fire's quick progression. Aina and her family had to bolt as fast as they could to save themselves, and the smoke and flames separated them.

Aina worked her way through the fire and smoke to a small river that she knew could be close. She described the experience:

> Imagine yourself, a terrified young girl in shock, under these conditions… however, unless you experience something like this, there is no way to describe my condition. I was wearing stockings and high top shoes, but although none of my clothes burned, my feet baked inside my shoes and stockings, something I did not realize until later. I still have scars to remind me of that night.

A search party was formed to look for her and others that had been separated. Luckily she was found, but seven of her immediate family had perished that day. Her mother and six siblings were not as lucky as her.[215]

On October 12th, 1918, Hulda and Ellen Korpela played outside of their Automba home; they were ages seven and five, respectively. While they were playing, their mother was wetting the roof to guard against fire. When the phone rang, Hulda answered and was asked to tell the person calling where the fire was concerning her home. It appears here that the telephone system became a means of learning of the fire's progression and securing some kind of evacuation. This

[215] *Ibid*, 65-66.

was probably not a pre-planned method of response but instead a reaction to the flames through a medium of modern convenience. One could simply call a loved one or a neighbor to warn them of the approaching flames. When she said it was close, neighbors came and told them to evacuate. During the evacuation, her younger brothers thought the whole situation was a game and continued to play as they hurried along. They stayed at a neighbor's house that had a big field. Many other families congregated there because the property had many buildings and an open field that would be safer than trying to travel on the road or through the woods.

The Rengo farm that Hulda and her family stayed at became a home for many. Hulda's family slept on benches in the Sauna until the Red Cross donated the materials to rebuild her home. However, as she was close to many others, Hulda witnessed more than a seven-year old's share of suffering. She watched her mother throw jewelry into the flames because she thought it useless. She sat waiting for one of her playmates to come to the Rengo farm and learned through her mother that the playmate's entire family passed away the flames. Before the fire, Hulda and Ellen received as gifts two handmade wooden dolls and learned the hard way that wood was combustible.

It is not uncommon for a bored child to watch people, and the day passed by. Most children are very observant. After the fire had passed, Hulda and Ellen found trees to sit on and watched recovery take place around them. One of the more harrowing things that Hulda saw were trucks carrying the corpses of her townsfolk down the road to their final resting place. They watched as animals with severe burns were killed, so they no longer suffered. Unfortunately for a girl age seven, that is all she could do.[216]

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[216] *Ibid*, 75.

John Rengo, the head of the Rengo Farm that Hulda and Ellen stayed at deserved to be hailed one of the many heroes of the fire. At 11:00 am on the day of the fire, John threw a plethora of horse blankets into the water to soak. He had a vast field and took a team of horses out to plow a fire break along its perimeter. Once this defense was constructed, John took to the road outside of his house and started to plea for people to get off the road and go into his field before the fire got to them. While many did not listen, fifty people took the horse blankets John had soaked and laid still in his field. A total of sixty people were on his farm and survived the fire, those that took their chance with the road did not. The success of the Rengo farm demonstrates that while much of the reaction to the disaster resulted in an "every family for itself rush" to flee the area, some decided to seek safety in numbers and collaborate to secure a single chunk of land.

Once the fire passed, many people stayed with Rengo. John gave them a place to stay until the Red Cross could begin to provide small homes for the survivors. He fed them with potatoes now baked in the heat along with his cows. The Red Cross also brought food and a local grocery store called Ketola's that survived the flames brought clothes to the survivors on the farm. One of the more complex problems with the 1918 disaster was that the influenza pandemic happened simultaneously. John became a hero in fighting the disease as well. John created a tonic and passed it out to the survivors. Only three people caught the flu on his watch. One of them was himself, and the two others were members of his family who helped make sure that everyone else received the medicine. John made sure to help every single person that he saved got the helping hand they needed when it came to rebuilding their homes and their lives.[217]

[217] *Ibid*. 101.

The fire rushed towards the town of Kettle River and nearby Silver Township. The majority of Moose Lake men had been called to aid the men of Kettle River in the fight against the flames. This action again was a part of the fire warden system where if a fire became out of control, the fire warden would call on the services of another fire warden in a nearby town for assistance. Although they fought hard against the flames, they fared no better than the men in Automba. The inhabitants of Kettle River and Silver Township were forced to flee the supposed safety of Moose Lake. John Sobczak secured a vehicle for his wife and son to flee the flames from Kettle River. In a terrible twist of fate, John's family burst into flames trapped in the vehicle before they were out of sight. One of the most tragic aspects of the fire in this area was that frequently folks like John had sacrificed themselves to the dangerous jobs in order to save their family and ended up being the only remaining member of their family.[218]

Elina Johnson celebrated her golden birthday on October 12th, 1918. One of her gifts was a unique new pair of shoes. Her brother learned of the fire on a trip to the Kettle River Post Office and ran home to tell everyone the fire was coming. Elina and her family managed to get to Silver Creek before the fire thwarted their escape. The wind shifted, saving them at the river and they managed to walk to a nearby intact house. The following day she dined on baked potatoes and cooked ham that did not need any preparation. Elina had the misfortune of watching someone who was still alive, but whose skin had begun to fall off their body because of what the temperatures and the flames had done. When she went with her family to check on the state of their own home, she had the additional misfortune of tripping on a corpse and ruining her birthday shoes.[219]

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[218] *Ibid*, 85.
[219] *Ibid*, 62.

Mae Carlson was a young girl from Silver Township, just outside of Kettle River when the fire happened. Mae recalled that the entire summer had been dry and hot and that many section crews were busy fighting fires that only intensified as fall came along. Her father Alex Carlson was among one of the Soo Line section crews on October 12th, 1918. Once the section crew determined that fighting the fire was futile, Alex Carlson went home. His wife, Mary, attempted to save some of the hay. At 5 pm, a Barnum man drove by in a motor car to offer relief. Mae's family decided to try to save their farm. By 8 pm, it seemed as though they needed to leave if they wanted to live. Mae's father joined up with a neighbor family to make a break for Barnum. All they had were hayracks and wagons. Mae recalled that her father led the caravan because he had bought a horse from the Duluth Fire Department.

To get to safety, Mae and her family had to pass through a long section of flame going across the road. Her father told King, the firefighting horse, to take them through the fire to safety. Mae remembered the fire as being red hot and all around her family, but her father kept the horse calm, even when he lost the reins, and managed to lead them out of a quarter-mile of burning road. The family stayed at the farm of a family friend near Barnum for the night and remained safe.[220]

Anna Keinanen was a ten-year-old girl in Silver Township when the fire occurred. She recalls seeing smoke for several days leading up to Saturday, October 12th, 1918. She recalled that nobody in her family saw a reason to be worried. They went along with their chores until late each day. Before they could register their peril, their barn was on fire. Like many other families, they lost everything and lived with the neighbors until the Red Cross gave them the

[220] *Ibid*, 24-25.

lumber to build their homes. Anna's brother Richard, just one year older, had little concern about what had happened to the family. He was gleeful that the schoolhouse had burned down as well. In many of the narratives provided by child survivors, their association with the local schoolhouse informed their fire experience. In some cases, as with Richard, they took glee in the absence of intellectual labors. On the other hand, some would have preferred school as a welcome distraction to the idleness and horror that was all around them.[221]

Not all children were oblivious to impending peril. Gladys Huffman, who was 14 years old and was living outside of the city of Moose Lake, had significant concerns that fire was going to reach them. Her father was called to fight the fire while she argued with her mother about the gravity of the situation. Her mother believed that it was just another fire and that the menfolk would put it out and then come home. When her father came home, it was good news, and the wind changed in a way that saved their farm. When they woke up the next morning, they learned that Moose Lake had been leveled. They took in a family friend who had lost everything and let her stay for several months. She watched as truckloads of corpses went passed her house. Gladys was right in believing that the fire was going to cause doom, perhaps her parents had more experience with routine fires that they refused to believe the apparent signs in the glowing sky.[222]

Sigrid Hultberg was fourteen and living just outside of Moose Lake when fire greeted her on October 12th. Her father put her in charge of the home, and two younger sisters as her father and brothers went to pick up her mother from a visit with her uncle. Her younger sister Olga wanted to enter the root cellar to escape the flames, Sigrid wisely said no. Sigrid had the three of

[221] *Ibid*, 69.
[222] *Ibid*, 57.

them wait in the house instead. This decision saved the three sisters from the fate of many other families that had attempted to survive in root cellars. Those that had attempted to survive in root cellars typically died of smoke inhalation. Once the rest of the family had returned home, it became evident that they needed to flee. They had to make their escape on a horse-drawn wagon.

The neighbor's Model T soon overtook the wagon. The neighbor offered to take as many of them as he could in the vehicle. Sigrid, her mother, and four younger siblings got in the car which sped towards Moose Lake. Sigrid looked out the window as the car sped along and the scenes of violence reminded her of Sunday School. She had learned that when Armageddon would take place, stars would fall from the sky, in many ways the flames and falling debris led her to believe that she was witnessing the end times. By the time they got to Moose Lake the town was already on fire, and they would have to seek refuge in the lake.

Sigrid and the other children went into the lake knee-deep. Picnic tables were placed in the water so that they could sit on them. Sigrid held in her arms her two-year-old sister, who was crying. She sank a song to keep her calm, "Keep the Home Fires Burning," the irony of which was pointed out by one of her friends. While this was happening, the parents wetted blankets, threw them upon the children, and then splashed water from a bucket onto the blankets.

The local pastor soon came to lead the kids in prayer and thus help them calm down. Smoke was still all around them, and they were told that they still may not make it even in the water. The most significant relief for Sigrid was meeting her father and brother at the lake after they had escaped the flames. It would not be long before several brave souls from Barnum would drive into town in motor cars to bring those on the lake to the safety of the next town. [223]

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[223] *Ibid*, 58-59.

Alice Ohlgren lived outside of Moose Lake and had turned seven on October 9th. She was excited about school; she was in first grade at a little wooden school house a quarter-mile away. On October 11th, Alice spent some time on the party telephone line listening to people discuss the fire caused by train sparks nearby. Everyone on the party line was confident that the fire would never reach Kettle River or Moose Lake. The morning of October 12th was bleak; phone calls informed the Ohlgren's that it looked as though the weather had changed and now the fire would consume both Kettle River and Moose Lake. Alice sat at her kitchen table and watched her beloved school burn. Although Alice's home survived, the real tragedy for her was the loss of her school. She could not attend school for a year until a bus system could extend to take her to Moose Lake.[224]

Stanford Dodge was a boy of six years when the fire destroyed his Moose Lake home. His father had ventured to Kettle River in an attempt to contain the fire. His father did not return by the time his family had to flee. He, his mother, and several siblings all piled into the neighbor's motor car and fled to the lake. The motor car supposedly carried seventeen people to the lake, where the survivors watched as the fire came down Soo Hill (now Folz Boulevard). They further retreated to Pine County and spent the night at Island Lake on the shoreline. The following day they were welcomed to the breakfast table at a local farm. Stanford and his siblings were sent to live with family in Wisconsin while the town pieced itself back together. From there, the children lived in one of the few remaining homes in Moose Lake before they could move into the Red Cross house provided for them.[225]

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[224] *Ibid*, 94-95.
[225] *Ibid*, 33.

The experiences of these children provide intense insight into the experience of the fires of 1918. While some remember fleeing their homes, others remember watching their fathers build a defense around their homes. Some children were devastated that their schools had burned along with every other source of stability they had, while others were happy that they did not have any way to attend school and thus had more time for play. Some children understood the gravity of what happened around them to a greater extent than their parents whereas some others played during the entirety of their fire experience. Even though these survivors were children, one can see through their accounts that the fire warden system was utilized to little effect and that the response to the fire quickly descended into acts of heroism and scenes of death.

From Brookston to Cloquet

The second fire traveled from Mile Post 62 through Brookston and into the Fond Du Lac Reservation before it would destroy Cloquet. This fire would take on a less lethal tone, but in its course through Fond Du Lac, it would reveal once again racial tensions that were always under the surface of the communities surrounding the reservation and the nation itself. However, the memory of this particular path of fire is overwhelmingly positive because almost all of the city's population managed to evacuate via train and the event has been deemed "The Miracle of Cloquet."[226]

Steve Koskela and John Sundstrom were the first people to witness the fire at Mile Post 62 on Thursday, October 10th when they were working on gathering materials for Koskela's Barn. They saw a Great Northern Railroad Train stop, and when it left smoke and then the fire could be seen. Both worked hard to fight the fire and built a fire break. At 6 p.m., a section crew

[226] Carroll and Raiter, *The Fires of Autumn*, 23-58.

came to assist in fighting the fire. The next day the wind changed, but the fire was not out, the section crew left the area for other assignments by the company. The company did not place any patrols in the area either. Koskela and Sundstrom did not violate the law because when they left the scene others were fighting the fire. The section crew leaving and being reassigned and the lack of any sort of fire patrol in that area were flagrant violations of the 1911 law. By Saturday, October 12th, it was too late to correct that mistake.[227]

Brookston residents witnessed their houses seemingly burst into flames. The fire had not reached the houses but created temperatures that allowed for spontaneous combustion. Brookston residents managed to race to a train that took them to Cloquet. The citizens of Cloquet were constructive and provided water and essential aid for the new refugees. These Brookston residents warned Cloquet that it too would burn, but Cloquet residents felt like they were in the clear. The train brought the Brookston residents to Carlton and Superior.[228]

From Brookston, the fire traveled into the Fond Du Lac Reservation. The Reservation, like Kettle River and some of the other smaller townships in Carlton County, did not have the same infrastructure that would save Cloquet and Brookston. Without the railroad to swiftly escort them to safety, members would have to flee on foot or horse-drawn wagon. Unfortunately, very little has been written on the fire experiences of the Fond Du Lac members; these experiences deserve more attention. A few essential accounts illustrate the experiences of many members at Fond Du Lac.

Grace Sheehy, a mother of five, saw smoke and wind and realized trouble was coming. She went to the neighbor to discuss what to do. The neighbors decided to leave, and Sheehy

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[227] *Ibid*, 26-28.
[228] *Ibid*, 29-30.

thought she would have a better chance of building a fire break than trying to flee with five small children. She recalled that the wind had enough force that the trees were falling around her. After a while, her neighbors asked Mike Beargrease to assist her in leaving because flames were becoming imminent. He helped her with the children, but the fire blocked their path, they quickly moved towards the lake and got in a boat and paddled to safety. From the boat, they were able to watch the flames travel. From their position, it looked like the flames were moving farther away and they were able to see a group of people on land by the lake. They returned to shore and spent the night at a farm that had not burned.[229]

Frank Houle lived outside of Indian Village at the time of the fire. The smoke became intense near his house around 5:30 p.m. His wife took their child to Indian Village in hopes of more clearer air. Frank followed an hour and forty-five minutes later, after picking up some furniture and releasing their animals. He met his family at the Holy Family Catholic Church as Indian Village began to burn down. He threw his furniture from the wagon and filled it with women and children from the church. He brought them from Indian Village to the relative safety of the Northern Lumber Company where he dropped them off before crossing the St. Louis River by a bridge and returning with a boat. Here, one can see more selfless heroism conducted by an individual. The key difference between the communities on Fond Du Lac reservation and other communities was that the communities on the reservation realized the threat sooner and thus managed to escape with nobody in their community harmed.[230]

Around this time, it became thoroughly evident that the city of Cloquet would be lost to the flames. Most of the city's inhabitants, along with many Native American refugees rushed

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[229] *Ibid*, 31-32.
[230] *Ibid*,34-35.

towards the trains standing by. Harry Morrisette, a Fond Du Lac member, had difficulties successfully getting on the train and others would opt to spend the night in the St. Louis River and Pinehurst Park to avoid the flames.[231] Others ran swiftly from the flames, leaving their baby carriages in a pile before boarding the relief train that would speed them to the safety of Duluth and Superior.[232]

Among those that reached the train were Vilma and Helen Newman, young girls of fourteen and eleven respectively. They had been playing outside when the alarm sounded. They knew about the fire that had been going on in Moose Lake, but they felt that that fire could never reach them. The Moose Lake fire never did reach them; instead, flames were coming from Brookston. The children and their extended family raced as fast as they could to the train depot and the train. The train depot had begun to burn by the time their family was on board. The train began to flee the burning city as the girls watched everything go up in flames. The conditions on the train were very stressful. The girls saw a young woman go into labor and give birth as they were escaping the flames. Once the train had made it to Duluth, the wind had helped stay the flames, and the girls along with everyone else on the train became refugees.[233]

Quick Relief

Thankfully for the survivors, a word about the fires had reached Governor Burnquist on the day of the fires. He had instantly called in the National Guard, Home Guard, and Motor Corps and notified the Red Cross that aid would be needed where the fires had been burning. He made sure that he and his wife were on the scene at Moose Lake and Cloquet by the 14th and that

[231] *Ibid*, 53-54.; Tom Peacock, "Archival Material on 1918 Fire on FDL" *Pine Knot* 10-10-91. Carlton County Historical Society Folder Communities Affected—Fond Du Lac.
[232] Carroll and Raiter, *Fires of Autumn*, 40-58.
[233] Lehet et al. *Fire Stories*, 89-90.

they were in Duluth on the 15th. These organizations would focus on taking care of the survivors, assessing their medical needs, and ensuring that they had food and shelter. Shortly after the fire, the Forest Fire Relief Commission was created to help facilitate relief and efficiently coordinate the efforts of all of the agencies involved. Alongside the Forest Fire Relief Commission came a myriad of charitable organizations of every variety that would raise money to relieve the survivors.[234]

Newspapers across the state exploded with reports on the flames. They sold issues with inflated numbers of dead (some erroneously reported up to 1,000 dead). Many of these newspapers provided sensational stories about dangerous fires and acts of heroism. But these newspapers also highlighted what was being done to help the survivors of the fire. Duluth became one of the bigger heroes of the fire because it provided many homes for the newly homeless and Duluth and Superior provided headquarters for the majority of the relief efforts.[235]

Things turned out a little different on the Fond Du Lac Reservation. George Cross, the Fond Du Lac Superintendent, was unable to call for relief until the following day. He sent a telegram to the Indian Office in Washington that the reservation had burned and that all official records and furniture were gone. He notified the main office that there were many homeless and requested a wire transfer of $5,000 in order to kickstart relief on the reservation. Five days later,

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[234] Colonel Hubert Eva, *Report on the Forest Fire Relief Commission* Feb 28th, 1921, Minnesota Historical Society Gale Library Minnesota Forest Fire Relief Commission 1921 Final Report and Public Examiners Report on 1918 Forest Fires Box 115.k.16.2f, 14-15, 30-33.

[235] "Flames Death Toll 1,000 in Northern Minnesota: Moose Lake, Cloquet, and 8 Other towns Destroyed" *The Minneapolis Morning Tribune* October 14th 1918, 1. "Trains Race through burning forests with refugees from towns," *The Minneapolis Morning Tribune* October 14th, 1918, 2.; "Fire Perils Rescue Trains with Thousands in Danger," *The Minneapolis Morning Tribune* October 14th, 1918, 2.; "Fire Relief Commission Permanent Organization, *The Duluth Herald* October 19th, 1918, 14. "Frightful Loss of Life and Property by Conflagration Increasing Fast," *The Duluth Herald* October 14th, 1918, 1. "At least 1,000 Persons Perish in Forest Fires," *Tower Weekly News,* October 15th 1918, 2.

on October 18th, Cross sent another letter updating the main office on the situation at Fond Du Lac. Cross claimed that the situation was going well. Many Fond Du Lac members made it on the relief trains to Duluth and Superior or had been brought there after the fire settled in order to find work. Those that could remain on the reservation did so and received rations. All of the farm animals on the reservation were consolidated at the farm run by the government.

Cross informed the main office that much of the relief would be coming out of the Fond Du Lac Hospital. It was one of the more significant buildings that had not burned. Around sixty people ate meals provided at the hospital in the following weeks. Cross assessed the damage at fifty-seven homes destroyed and a series of other buildings and the totality of animal feed lost. To remedy this, Cross purchased food for both humans and animals, beds and bedding, and fifty thousand feet of lumber. The lumber was to be used for the quick creation of tar paper shacks to replace the houses that were lost. Cross believed that he had bought enough wood to create 12x20 tar paper shacks for houses and other buildings. Cross was happy to inform the main office that no member of the Fond Du Lac Reservation perished, he argued this was possible because the members were "better able to take care of themselves," than the people who perished in rural Carlton County.[236]

Cross lamented that reconstruction of the area would take a long time. He had some money and had managed to purchase necessary relief materials with that money. Five-thousand dollars was not enough to completely fix the devastation that had occurred. For a full restoration, they would need the money that could only come from congressional approval. The next meeting

[236] George W. Cross, *Western Union Telegram October 13th, 1918 to Indian Office Washington* Carlton County Historical Society, Communities Affected—Fond Du Lac.; *Superintendent S. D. A. to the Commissioner of Indian Affairs, October 18th, 1918*, Carlton County Historical Society, Communities Affected—Fond Du Lac.

of Congress would be in the summer, so the people on the reservation would be forced to make do throughout the winter. There was little reference to outside help. Help that did come originated from the Red Cross, but was only a small portion of what was being done for Moose Lake and Cloquet. Amongst the immediate needs Cross mentioned in his letter were three typewriters and some paper. It is a little perplexing that those would be listed among the immediate needs instead of the essential food, water, and shelter, but with most of the homeless being taken care of in Duluth and a fair amount of the reservation intact it must have felt like things were more or less under control.[237]

The series of organizations that jumped to the aid of Moose Lake and Cloquet did not make the relief efforts any less grueling. One of the first things to happen was the declaration of martial law in the fire-affected areas. Once martial law was declared, the need to bury the dead became paramount. With the influenza pandemic causing additional problems, the smoke weakened immune systems of the survivors could bear no time for the ceremony, and many were tasked with the profound job of helping bury the dead. There were so many corpses flooding into Moose Lake that it was impossible for the morgues and funeral homes left standing to accommodate all of them. One tragic benefit of such intense heat was that the whole body would not always be there. Instead, there would be one part or another part of someone's body that could be placed with someone else's body part if they were presumed to be family. Entire families could share a single coffin in a plethora of cases. [238]

The survivors did not appreciate of the efforts of the National Guard and the Home Guard in regards to the dead. Each group did the thankless and gruesome task of recovery. They went

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[237] *Ibid*.
[238] Lehet et al., *Fire Stories*, 18, 48.

out into the rural area and collected the corpses, and then proceeded to stack them in a giant pile "like cordwood" outside of the local hotel so that they could be identified before being placed in a mass grave. When the National Guard told Hulda Koivisto that her children were going to be buried in a mass grave, it did not sit well with her Christian conscience. She told three officers that her children would not be placed in the mass grave, but instead, she would place all seven of them in a wheelbarrow and bring them to St. Peter's Cemetery herself if she had to in order to ensure that her children received a proper Christian burial. The National Guard conceded and assisted Hulda in burying her children along with some help from the Red Cross.[239]

Henry Mickelson had the misfortune of volunteering to help the Home Guard with relief in Moose Lake. The big task that Mickelson would be helping with involved placing people in coffins at one of the temporary morgues. The temporary morgue Mickelson worked within was usually a butcher shop. Alongside the animal meat hanging from meat hooks suspended from the ceiling were corpses that were not always intact on the floor and in coffins. Naturally disturbed and close to heaving, Mickelson went outside and asked for any other job. He was then tasked with helping to dig the mass grave just outside of Moose Lake. Mickelson noted in his recollections of the day that the Home Guard seemed to have control over everything, but that many volunteers like himself were doing a considerable portion of the labor.[240]

Martial law was not a very pleasant experience for many of the survivors either. C. A. Hanna was a brakeman for the Soo Line Railroad operating out of Lawler and Automba. According to Hanna, once Adjutant General Rhino came to the area, martial law was declared, and the railroad workers were rendered under the control of the military. Hanna would be called

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[239] *Ibid*, 71.
[240] *Ibid*, 85.

day and night while under martial law for 21 days to assist in emergency relief and fighting the lingering fire. Hanna recollected not gaining very much sleep while the military was in control of the area.[241]

Under martial law, people in towns like Moose Lake required a pass to enter and exit. On the one hand, this was an essential measure for the security of the town so that looters and opportunists would not steal from the dead. One person was caught robbing the dead and received a short trial before being executed. On the other hand, martial law made it difficult for some people outside of town to come and help. Sivert Overland and Reverend Holmberg who were coming from Windemere Township about ten miles away, were turned away despite wanting to assess the damage done to a church in town. Although it was not guaranteed that they would have been able to do anything, they were attempting to enter in order to provide some relief and would have provided a potentially valuable contribution had they not been turned away.[242]

Despite tragedy and scenes of terror all around them, some newspapers were able to provide charming stories to offer the survivors a humorous reprieve from their surroundings. One newspaper told the story of Sheriff Boekenoogen who was helping in Automba after the fire had passed by and struggled to find himself a bed. He took a coffin to the kitchen and slept inside of that for the night. When the cook went into the kitchen the following morning, the sheriff woke up and startled the cook who ran away in fear. Charming newspaper stories like this one helped to alleviate some of the pain that all of the survivors and plenty of those distributing relief had been feeling in the previous days. Here, the newspaper played two roles. The first role was to

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[241] *Ibid*, 46-48.
[242] *Ibid*, 52, 98.

keep people abreast of the developments in the disaster response. The other was to provide a small morale boost. Short stories like this one managed to fulfill both of those roles.[243]

The Red Cross also set up substantial distribution centers and provided significant aid to the survivors. The Red Cross supplied the coffins for burial and what would later be called Red Cross Shacks. The Red Cross Shack could come in one of two varieties, either 12x16 or 12x20 foot houses would be given to the survivors for self-assembly. They also provided a "Kitchen Kit," that supplied the survivors with plates, pans, silverware, cooking materials, and laundry materials. The Red Cross also distributed daily rations for any surviving farm animals. They also distributed food to the families. Unfortunately, not all of the food was of high quality, much of the bread had mold, and the flour was in poor shape as well.[244]

One essential part of the relief that is not often discussed is the need for telephone communication. With affected areas under martial law and the distance between cities being several miles apart, it would be essential to set up communication lines as soon as possible. One of the first trucks to arrive into the burned over towns were telephone repair crews. By the end of the day on October 13th, Moose Lake and Duluth could communicate relief efforts via telephone. By the morning of the 14th, Cloquet could communicate relief efforts with Duluth by way of Carlton. Over the next two days, direct communication would develop between Cloquet and Duluth, and telephone communication was possible between the Red Cross Hospital and the Home Guard Camp. Over the following two months, one hundred and fifty telephones would be operation in Cloquet. All of these lines were necessary, but they were only temporary for coordinating relief efforts. Most resources of men and material were being utilized by men

[243] *Ibid*, 82.
[244] *Ibid*, 95, 135.

overseas, and long-term communication infrastructure could only begin once the military no longer needed those resources.[245]

Long Term Relief

After the winter and spring following the fires, relief was still slow to arrive at the Fond Du Lac Reservation. During that time, Fond Du Lac offices had to be moved to Superior, Wisconsin in order to function. The reservation gained a new superintendent in L. S. Bonnin who worked diligently to enact the reconstruction of the damaged parts of the reservation throughout 1919. On July 30th, Congress had allotted $60,000 for the reconstruction of homes for Fond Du Lac fire survivors, to be appropriated from "Chippewa Funds." On August 1st, 1919, Bonnin wrote to the Commissioner of Indian Affairs about forty-five homes that still needed to be built. In the letter, he claimed to be feeling pressure from reservation members about quick reconstruction before the coming winter. He voiced his concern about replacing the homes of forty-five families before winter set in because that would be an additional year before those rendered homeless by the fire could receive new accommodations. In a similar vein, Bonnin inquired about receiving monies for road construction on both Fond Du Lac and Nett Lake reservations.

On August 4th, a committee from the reservation met with Bonnin to discuss how the reconstruction of the reservation would play out. They pushed Bonnin for the money to be distributed as soon as possible so that they could buy the material themselves and then contract the labor out themselves as well. They asked if each case would be able to receive money based on respective losses. Bonnin informed them that the allotment would be a blanket $1,000 per

[245] *Ibid*, 125-126.

survivor and that the total expenses for their homes could not exceed that cost. When the committee asked if barns would be replaced, Bonnin told them those could only be replaced if it fell within their strict budget of $1,000. The committee pressed Bonnin to work towards getting the funds as soon as they could so that they could build their homes before winter.

On September 24th, 1919, funding still had not come in, and Bonnin wrote yet another letter to the Commissioner of Indian Affairs to release the funds for construction. Bonnin noted that at the time of writing work had begun so that people would have homes before winter, and the families were hoping that they would still qualify for funds as they were released in order to pay for said construction. However, the money could only be used to construct homes, there would be no room to regain any other kind of loss using these funds. Bonnin explained to the commissioner that these homes would cost about $800 in materials and $200 in labor for forty-five modest houses. Bonnin lamented that this money did not come close to replacing the actual losses because outbuildings and animals and other materials were replaced and all the money was going to four walls, a floor, and a ceiling. Basic math can tell one that if forty-five houses needed to be built and that the houses would each cost $1,000, this amounted to $45,000, not $60,000. It is not clear in any of Bonnin's letters what was to become of the remaining $15,000.[246]

It would be a difficult fight to provide funds for the reconstruction of Fond Du Lac adequately. Many people looked to gain money to replace their losses through the courts.

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[246] Tom Peacock, "Archival material on 1918 fire on FDL" *Pine Knot* 10-10-91, Carlton County Historical Society, Communities Affected—Fond Du Lac.; L. S. Bonnin to the Commissioner of Indian Affairs Regarding Houses For Indians, August 1st, 1919 Carlton County Historical Society, Communities Affected—Fond Du Lac. L. S. Bonnin to the Commissioner of Indian Affairs regarding Houses For Forest Fire Sufferers, August 7th, 1919, Carlton County Historical Society, Communities Affected—Fond Du Lac.

Members would file a total of two-hundred-fifty claims against the United States Railroad Administration in attempts to recuperate their losses. The legal battle for reimbursement would be nothing lengthy, and it would take until 1937 for payments to come in. Even with payments finally being sent, the total would be laughable, survivors would gain something in the range between $1.39 and $4,000. The average payment would be between $200 and $300, but that money would not come close to the actual cost of reconstruction.[247]

Long term recovery for the whole of the burned region was only slightly better. The Forest Fire Relief Commission had finished its work and closed its doors by February of 1921. In its final report, the commission revealed why relief for the region was in the doldrums. The commission had divided their process into two phases. The first was emergency relief, and the second was reconstruction. These phases are similar to modern thinking behind disaster relief, but the significant difference was how the commission thought of the second phase. From the beginning, the commission believed that they could not hope to replace everything that had been lost by the fire. The solution would be to adopt a minimalist approach.

The philosophy of the commission emphasized mechanical behavior. The primary goal of the commission was to "help every man to help himself." To do so, they believed the commission should only provide a foothold for the survivor, and the residents would have to help the region recover the rest of the way. They claimed that the survivor would be driven to reconstruction out of a sense of "need" versus a sense of needing to recover "loss." In other words, the people who had lost everything they owned would be given minimal relief so that they might pull themselves up from their bootstraps and repair the region themselves. The

[247] Dan Anderson, “The 1918 Fire on FDL” *Pine Knot* 10, 26, 1989 Carlton County Historical Society, Communities Affected—Fond Du Lac.

commission believed that if they merely supplied each survivor with a crude home for their family, an individual drive would kick in and generate the rest of the relief.[248]

The beliefs of the Commission members proved that they had learned nothing from the disaster. One of their chief fears was regarding the agricultural development of the region. The report states: "There was danger that the development of agricultural resources of northeastern Minnesota, which had progressed rapidly in recent years, would be arrested. That would have been a severe check to the development of the state, an economic loss far greater than the direct property loss caused by the fire." Here, one can see that progress was still being defined in the region by a lack of trees and the increasing presence of farmland. The belief that if the region could not redevelop for agriculture being more economically significant than the property loss caused by the fire is farfetched. The farms in the area were family-owned, and the significant economic material burned by the fire were trees that would not be replaced but still commanded an incredibly high value. The economic basis of each town was timber, not agriculture, although the family farms in the area did supplement both the local and the state economies.[249]

The commission believed that farmers were going to leave the ravaged land and choose to make a living elsewhere. The commission wanted to keep the population of the area stable, and they wanted that population to do close to the same profession that they had before the fire. To do so meant maintaining as many of the farmers as they could. Establishing money for housing needs helped keep some residents in the area. Another solution to this problem was to spend over $90,000 on dynamite and distribute it to the farmers. The farmers would then take the dynamite and use it to clear land to expand their farms. Thus, once the area was restored there

[248] Eva, *Report of the Forest Fires Commission,* 8, 22-24
[249] *Ibid*, 22-24.

would be more farmland (and more progress) after the fire than beforehand. However, distributing dynamite to a burnt over region was not the most intelligent thing for the commission to do. On the 14th of October, a group of men buried some of this doled out dynamite in the ground near Kettle River. They were barely out of range when the dynamite exploded (it was not lit), and they were all knocked onto the ground. The temperatures deep in the ground were still warm enough to cause the dynamite to explode two days after the fire had passed.[250]

At least the commission did a little more than making sure farmers had shacks to live in. They distributed seeds for the farmers to sow their crops as well. However, the weather was not on the farmer's side. In 1919, crops were destroyed by hail and in 1920 wetness destroyed crops and the commission replaced the seed each time. They also managed the other relief groups work to make sure no two organizations did the same task. By 1921, the commission boasted that 95% of the survivors had been able to move back onto their property and live. However, the small relief provided was a far cry away from everything that they needed to be back to pre-fire level. In light of this, the commission claimed they were not an insurance company and that everyone could have had insurance and it was their fault that they did not have insurance to restore them to pre-fire level living.[251]

To see one of the unexpected problems about the relief efforts of the commission, one needs to look no farther than the commission's account books. The fire destroyed $30,000,000 worth of property. The Forest Fires Relief Commission generated a relief fund that totaled $3,150,000, only about 10% of the total damages. Of the money generated, $1,101,310.75 were

[250] Eva, *Report of the Forest Fires Commission*, 8, 22-24.; Lehet et al., *Fire Stories*, 111.
[251] Eva, *Report of the Forest Fires Commission*, 26-28.

donations from people across the state, $1,670,000 generated through the commission's sale of specialty bonds, the state calamity fund provided just under $300,000, and the Red Cross contributed $75,000. The Superior Relief Society contributed an additional $128,177.36. St. Louis County alone generated close to $150,000, and the Finnish Relief Society produced another $36,000. Even with the help of these other organizations, the money generated to aid the survivors did not touch the totality of the problem.

Because the relief commission closed its doors too early, the survivors would have to fight for themselves to restore the region, as the commission had intended. They did so, not by pulling themselves up from their bootstraps and making industrious decisions in the name of progress, but instead by suing those responsible for the disaster so that they might make up the difference between the damages and the relief itself. The survivors would sue the railroad companies. The problem was that those railroad companies were technically not responsible for the disaster because the United States Federal Government had taken control of every railroad in the nation and all of the responsibility by the railroad became the government's responsibility. One cannot sue a wartime government without being deemed a war critic. Eventually, the survivors would receive a partial payment for their losses at fifty cents per dollar. However, that would not be enough to recuperate from the debt that many people drove themselves into in order to restore the region. Finally, in 1935, with the help of President Franklin Roosevelt, the burned-over area would receive the final payment for their losses that occurred a total of seventeen years prior.[252]

Seventeen Embattled Years

[252] Carroll and Raiter, *Fires of Autumn,* 129-174.

It would take seventeen years for the survivors of the 1918 fires to gain money that was owed to them for damages. Thankfully, for the 1918 fire survivors, unlike any survivor of previous fires, a system had been created that assisted in finding and fining those responsible for the blaze. The only problem would be that the fire occurred at an inopportune time for lawsuits to be successful. Even when the railroad companies were deemed at fault by Minnesota courts, it would be difficult to receive payment because the incident occurred during a time of war. Thus, fighting would have to continue well into the Great Depression.

Most people believed that the railroad, in particular, the Soo Line and the Great Northern railroad companies were at fault. Sparks had created the flames that would change the landscape of Carlton County and the surrounding region, and those sparks came from trains. It was the natural, logical step that the railroad companies ought to pay out the damages incurred as a result of preventable sparks leaving their trains. William Cox, the state forester presiding over the fire, argued that negligence of the inhabitants of the burned-over area caused a significant amount of the damage. He claimed that plenty of bog fires and campfires from travelers had been left unattended (against the law) by people in the region contributed to a substantial part of the fire that would grow in combination with railroad spark fires to decimate the region.[253]

Cox and other officials would be hesitant to blame the railroad for any of the damages and preferred to find other avenues of blame. The reason blaming the railroad possessed complications was because without the railroad far more people would have perished in flames and they would not have been receiving any logistical support for recovery had it not been for the railroads. The railroads brought the National Guard, Home Guard, and Red Cross to the

[253] *Ibid*, 129-131.

burned area and supplied all of the distribution centers with aid materials. Large monetary donations would also have to be carried by train to the areas in need. Moreover, most of the survivors had evacuated by train to save their lives. The railroad companies would need to play either the hero or the villain, but it could not be both.[254]

The railroad companies had concerns about taking the fall for one of the direst calamities in state history and decided to employ their investigative team. The railroad companies gave the investigators one of their trains to serve as a headquarters. These investigators were in charge of taking statements from survivors in order to keep railroad lawyers educated about the series of events leading up to the fire. The railroad lawyers wanted to prepare against the myriad of local lawyers that would inevitably be coming to recoup their losses.

The railroads were nationalized during the First World War in order to make the American War Machine run more efficiently. Even though the government would be in control via the United States Railroad Administration, everything would be operated by the original owners of each company. When lawyers looked to sue individual companies, they learned instead that they would have to sue the government which would be embarking on a much more significant task. The railroad administration would win case after case. However, because survivors saw other survivors take recovery into their own hands by suing the railroad, they too would take up the banner and strive for the same justice.

The average fire sufferer was cash poor, and legal fees would be steep. In 1919, sufferers organized and became members of The Northern Minnesota Fire Sufferers Association; a group tasked with combatting the problem of legal fees for the fire sufferer who wished to file a claim

[254] *Ibid*, 131-132.

against the railroad. The fire sufferers would have their first decisive victory in *Jacob Anderson vs. St. Paul & Sault Ste. Marie Railroad Company and Others*. In this case, the judge would rule that as long as the railroad could be demonstrated to have contributed a significant portion of the flames, they would be liable for damages to the area burned.[255]

This initial legal victory would lead to a series of other legal victories that would be held up by the Minnesota Supreme Court. In 1921, it would be decided that the Railroad Administration would need to begin paying for the negligence of the companies at work three years earlier. However, these new victories would set out a whole new list of problems. The railroad may have been found liable for all of the damage, but it was reluctant to pay for all of the damages because other factors were in play. The railroad companies managed to convince the governor and the courts that they ought to only pay for a portion of the damages. The railroad companies got away with paying $12,701,664.67. This payment would bring the total of all relief gained to around $15 million. Unfortunately, that sum only made up half of the total losses.[256]

In 1928, fire survivors got behind a new group to give them justice. This new group was called the Minnesota Forest Fire Reimbursement Association, and its goal would be to lobby in the United States Congress for full reimbursement of the damages that had occurred a decade prior. One of the most prominent voices of the organization came from Anna Dickie Oleson, a survivor from Cloquet. She helped strategize the actions of the association alongside its leader Frank Yetka. Key to the solution fire sufferers was looking for would come with the election of President Franklin Roosevelt. Roosevelt in the White House and a democratically controlled Congress provided the necessary push needed to pay out the remaining claims.

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[255] *Ibid*, 133-136.
[256] *Ibid*, 144-158.

April 27th, 1935, Roosevelt signed the Ryan Bill that would pay out substantial claims. The paid claims resulting from the bill would total $10,837,326.12. Now the total relief would be around $25,000,000. It would not total all of the damage because some of the damage had no surviving member of the family to claim it. On the day of the fire, whole families were destroyed, and their farms and other property would be counted amongst the losses. However, without descendants, nobody could claim the five-million dollars that would be due to that remainder.[257]

Conclusion

The fires of 1918 were the most pervasive in the memory of most Minnesotans. It possesses a place in residents' minds when it comes to their state history. Before the fire, the state had developed the most robust prevention program that it ever possessed up to that date. However, cultural perceptions about fire's ability to burn, as well as the violation of various laws, ruined the chances of a preventative system from working. It was assumed that all fires would be under control. It was assumed that a fire a short distance away would not rapidly reach the homes of so many people as quickly as it did. It was assumed that a fire once under control would stay under control. These assumptions cost many Minnesota counties dearly.

Even if Minnesota possessed the most robust prevention system in the world, it would have been utterly useless if laws and regulations went unfollowed. When the railroad companies did not provide patrols in dry areas during the dry season, they had broken the law. When the section crews left the fire still going and unattended, they had broken the law that required them to be there until the fire was completely out. If the laws set in place in 1911 were followed, they

[257] *Ibid*, 159-174.

would have done a fair job at containing the damage done in the 1918 fire season. Unfortunately, the laws went unfollowed, and it likely cost 453 people their lives.

No fire relief response previously had the same level of sophistication as the disasters of 1918. Because of telephones and telegrams, word and relief efforts moved fast. By the morning after the fires, the various organizations performing the relief efforts had managed to set up shop and help the injured. There were several more organizations present at the 1918 fires than previous fires. There were so many organizations that a special commission had to be created in order to make sure that no two organizations were doing the same thing.

Despite the number of moving parts and the increased sophistication of relief efforts, those efforts maintained many flaws. One of the most dire flaws was that the relief organizations still defined progress in an outdated manner that contributed to the overall problem of forest fires. Despite all of the problems it created, the idea of progress being defined by the number of farms one could see still permeated the minds of Minnesotans. When coupled with the concept of people needing to pull themselves up by their bootstraps, these ideas engendered a minimalist approach to relief that did not fit the gravity of the disaster at hand.

Because the relief efforts were minimal in restoring survivors' livelihoods, the overall recovery of the region lagged significantly. The lagging restoration compelled survivors to take action into their own hands by suing the people responsible. However, finding the right person to sue and being able to produce any money through legal means would likewise be challenging. Legal processes slowed the ability for people to recuperate their losses and led to a seventeen-year delay in recovery for the many survivors of one of Minnesota's most grievous disasters.

Conclusion

Remembering Hell

With relief finally complete in the mid-1930s, survivors shifted their attention to memory. Groups like the Women's Friday Club in Cloquet would work on collecting personal accounts of survivors. They did so via a writing contest. The club encouraged survivors to write down their experience and change the names of the people involved. The club would provide a prize and keep records of the submissions for preservation. The compilation of these submissions had an introduction that summed up the public memory of the railroad. The railroad was bad. It destroyed people's homes and families and refused to pay the damages for seventeen years. These sentiments are still felt today. The introduction also claims that industrious spirit akin to the first settlement of Cloquet helped to rebuild it. The wasteful cultural precepts that had been lauded to the detriment of the settlers remained in the hearts of many.[258]

Culture and Learning

It is evident that among all of the problems and hazards that existed for the settlers between the historically significant fires, the most prominent threat were the people's perceptions of the environment and the risk that fire posed to them. An ecologically devastating cultural norm cloaked as manifest destiny, led to deforestation and settlement in cut-over regions. When coupled with a dry climatic shift and the need to clear land by fire to create farms, disaster would inevitably strike. The first of the historically significant fires would occur in a town thoroughly connected with the cultural definitions of progress. The other fires would destroy similar towns

[258] *Personal Accounts of Fire Survivors* Women's Friday Club of Cloquet, Carlton County Historical Society, 1-12.

of varying sizes. Each was near the railroad, each possessed some timber manufacture, and each possessed a plethora of farms in the surrounding area. The very things that settlers used to define progress were the same things that brought them down a path to self-destruction.

Although culture did not actively set the spark, it would contribute significantly to its ignition less tangibly. Fuel for the fire would be generated by the aggressive cutting of trees in the name of progress. The wasteful haste of the lumbermen would lead to large drying piles of slash throughout the forest. All of the fires would occur in towns and surrounding countryside built on cut-over land. Cut-over land, as a rule, was extremely at risk for fire. Finally, human progress via the railroad lines, alongside the reluctance of maintaining spark arresters, would lead to the actual sparks that would set the fire. Even though many simplistically believe the train would cause great fires, it would be a combination of things informed by cultural precepts that would generate the terrible blazes of Minnesota history.

The Hinkley fire took many victims who believed they were achieving manifest destiny. They ignored warnings in the local paper explaining that there were fires threatening town. They recognized that the fires were somewhere; in fact, they believed that as long as it was autumn, there would be a fire somewhere along a railroad right of way or in a peat bog. The existence of fire and fire close to town was thought of as nothing out of the ordinary. With a teenage sense of immortality, the people of Hinckley believed that the fire would never reach them. Even if it did, they had a fire-brigade that would put it out, and all would be fine. That lack of attention would lead to a disaster that rocked the state. It would become Minnesota's first experience at reconstructing a town.

Out of the ashes of the Hinckley fire rose the fire warden system. This preventative system would be the first marked step that Minnesotans took in preparing for a disaster. It would

emphasize prevention but also be able to produce minor firefighting capabilities. The major problem with prevention is that success is defined as a lack of something taking place. However, people do not like their government spending any sum of money so that nothing can happen. Similarly, people hated that the government was beginning to regulate what they deemed as progress. Restricting farmers who were clearing land with fire meant that the new system would slow the development of agriculture. Because of these feelings, many settlers would push back against the new system with vigor.

The fire warden system would face legislative and cultural pressure regarding its necessity until 1908. The fire warden system would lose serious funding and go through varying changes in the name of efficiency. However, in 1908, the most geographically massive fire in state history occurred at Chisholm. The result would be a slight funding increase and the development of the forest ranger program to help keep the less settled territories safe from unattended campfires. Unfortunately, lack of funding for the program and cultural distaste would continue. The program would have to lose its forest rangers right before the second-largest fire in state history in Beltrami County.

The survivors of Beltrami County, like the survivors of Hinckley, would believe that fire could never reach them. One survivor knew of a fire just two miles away from her home and believed that it would never reach her. The fire wardens and their recruits would be able to put out the fire, and all would be well. Unlike the Chisholm fire, people lost their lives in Beltrami County. The close temporal proximity of the fires coupled with the loss of life led to a revision of the fire warden system and thus the second significant development in learning from disaster. The 1911 revision would create a substantially better-funded program and a robust preventative infrastructure.

Even with better infrastructure and new complex organization consisting of both forest rangers and fire wardens permanently, the fires of 1918 managed to be as devastating as the Hinckley fire. Both fires killed around the same amount of people (though per capita losses were substantially higher at Hinckley). Part of the problem was the same naivety as earlier settlers. They believed that fire would not reach their home. The fire was always perceived as too far away to be a danger, and even if it were a danger, the men would handle it. Unfortunately, that would not be the case. That belief led to slow evacuation that caused mass death. The pervasive cultural perception was that fire was not a problem, and Americans would triumph over nature as they had everything else.

The disregard of the laws for railroad companies exacerbated the fire danger. They did not follow the laws put in place seven years prior. The railroad would utilize a defense in court that the fire occurred naturally and the movement of the fire and its damages were not their responsibility. The legal defense of the railroad company being absolute denial of responsibility on the grounds of fire being a natural occurrence belies a belief that fire happened independent of human action. Of course, this is not the case. Sparks from the railroad and dried slash paved the course of destruction in 1918 and both railroad sparks and dried slash are the direct results of humans manipulating their environment.

The general narrative of these fires demonstrates two critical conclusions about human learning concerning developing responses to disaster. The first is that successful learning cannot occur and survive if the cultural notions of the people receiving that learning fail to see the problem of the disaster. In other words, Minnesotans' continuing belief that fire would never harm them and that everything was fine, crippled the growth of learning how to respond to a major wildfire. Second, the only way to teach the necessity of that learning can only come

through frequency and death. Minnesotans did not take fire seriously because of the gaps between the devastating fires, and because one of the historically significant fires did not take any lives. Had both the 1908 and 1910 fires taken lives, there is a chance that learning could have accelerated more quickly. In the case of Minnesota fires, cultural precepts were a significant influence on each disaster, not because they created a literal flame, but because they stymied attempts to put them out.

In twenty-three years, four fires burned well over one million acres and took the lives of almost nine-hundred people. This snapshot of disaster history in a single state proves that Minnesota is a prime space to evaluate institutional learning in the wake of disasters. More importantly, the conclusion that cultural complacency stymies learning bears profound consequences both for history and the future. Complacency played a large part in the loss of life in Hinckley, Beltrami County, and Moose Lake. Today, we hear about a fire or some other disaster in California, Australia, or Brazil and treat them like they only happen "over there" or to "other people." We fail to see that natural disasters *do* and *will* affect us. We are complacent in disasters that happen all around us. The second conclusion behind this thesis is that breaking this cultural complacency towards natural disaster can only happen through frequency and mass death. The question left is, how many earthquakes, floods, fires, famines and windstorms will it take for us to change our future.

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